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*Attorneys for Defendant and
 Counterclaimant Availink Inc.*

**UNITED STATES DISTRICT COURT
 FOR THE NORTHERN DISTRICT OF CALIFORNIA
 OAKLAND DIVISION**

HDMI LICENSING ADMINISTRATOR, INC.,

Case No. 4:22-cv-6947-HSG

Plaintiff and Counterclaim
 Defendant,

**APPENDIX TO OPPOSITION OF
 AVAILINK INC. TO MOTION TO DISMISS
 COUNTERCLAIMS**

v.

AVAILINK INC.,

Date: January 18, 2024
 Time: 2:00 pm
 Courtroom: 2, 4th Floor.

Defendant and Counterclaimant.

1 For the Court's convenience, attached hereto are true and correct copies of the following Business
2 Review Letters from the Department of Justice, Antitrust Division, which are published on LEXIS.

- 3 1. Dept. of Justice, *3C DVD Business Review Letter*, 1998 DOJBRL LEXIS 15 (Dec. 16, 1998)
- 4 2. Dept. of Justice, *MPEG-2 Business Review Letter*, 1997 DOJBRL LEXIS 14 (June 26, 1997)
- 5 3. Dept. of Justice, *RFID Business Review Letter*, 2008 DOJBRL LEXIS 5 (Oct. 21, 2008)

6
7
8 December 6, 2023

Respectfully submitted,

9 KING AND WOOD MALLESONS LLP

10 /s/ Vincent Filardo, Jr.
11 VINCENT FILARDO, JR.

12 Attorneys for Defendant and
13 Counterclaimant Availink Inc.

Exhibit 1

1998 DOJBRL LEXIS 15

Koninklijke Philips Electronics N.V. (Philips), Sony Corporation of Japan (Sony), and Pioneer Electronic Corporation of Japan (Pioneer)

Department of Justice - Antitrust Division

December 16, 1998

Department of Justice Business Review

Letters

Reporter

1998 DOJBRL LEXIS 15 *

Subject: Business Review Letter

December 16, 1998

Core Terms

license, patent, licensee, licensor, player, portfolio, pool, royalty, pioneer, manufacture, format, technology, patent rights, companies, cost, has, infringement, electronic, complementary, proposed arrangement, video, compliance, anticompetitive, consumer, conform, grantback, inclusion, antitrust, terminate, innovate

Press Release

[*1] FOR IMMEDIATE RELEASE
THURSDAY, DECEMBER 17, 1998
WWW.USDOJ.GOV

JUSTICE DEPARTMENT APPROVES JOINT LICENSING OF PATENTS ESSENTIAL FOR MAKING DVD-VIDEO AND DVD-ROM DISCS AND PLAYERS

WASHINGTON, D.C. -- The Department of Justice today approved a proposal by three electronics firms that will allow them to jointly license patents to other companies so those companies can make discs and players that comply with the Digital Versatile Disc-Video and Read-Only-Memory (DVD-Video, DVD-ROM) standards.

According to the proposal, Koninklijke Philips Electronics N.V. (Philips) will offer package licenses on behalf of itself, Sony Corporation of Japan (Sony), and Pioneer Electronic Corporation of Japan (Pioneer). The license will allow makers of DVD-Video and DVD-ROM discs and players to use the technology the three firms own that is essential to comply with DVD-Video and DVD-ROM Standard Specifications.

In a business review letter issued today by Joel I. Klein, Assistant Attorney General in charge of the Antitrust Division, the Department said the proposed patent pool is designed to capture the efficiencies that may come from joint licensing of complementary technologies. It will reduce [*2] the costs

associated with obtaining licenses on the three firms' essential patents, while raising little possibility of competitive harm.

A DVD is the same size as a compact disc, but with more than seven times the capacity. Utilizing compression technology, a single DVD-Video disc can hold a two-hour feature film.

The Standard Specifications were established by Philips, Sony, Pioneer and seven other firms to define the Digital Versatile Disc for video and ROM applications. These Specifications also include rules, conditions and mechanisms for players to read the discs and convert them into images for screen display. The Standard Specifications implicate the intellectual property rights of a number of firms, including Philips, Sony and Pioneer.

Through the license from Philips, makers of discs and players that comply with the Standard Specifications will be able to license the essential patents of Philips, Sony and Pioneer in a single transaction. The license will tell potential licensees exactly what patents are in the portfolio, that a license on each portfolio patent is available independently from its owner, and that the licensee will need to obtain licenses from other technology [*3] owners as well in order to comply with the Standard Specifications.

Philips, Sony, and Pioneer have retained a patent expert to review their patents to ensure that the license conveys rights only to patents that licensees will need in order to comply with the Standard Specifications. Based on information that is obtained from the three firms, others in the industry, and the expert's own advisors, it will be decided which of the three firms' patents are necessary for compliance with the Standard Specifications. By doing this, the Department noted, the expert will help ensure that the patent pool does not combine patents that would otherwise be competing with each other.

Under the Department's Business Review Procedure, an organization may submit a proposed action to the Antitrust Division and receive a statement as to whether the Division will challenge the action under the antitrust laws.

A file containing the business review request and the Department's response may be examined in the Legal Procedure Unit of the Antitrust Division, Suite 215, Liberty Place, 325 7th Street, N.W., U.S. Department of Justice, Washington, D.C. 20004. After a 30-day waiting period, the documents supporting [*4] the business review will be added to the file.

Opinion

VIA FAX

Garrard R. Beeney, Esq.
Sullivan & Cromwell
125 Broad Street
New York, New York 10004-2498

Dear Mr. Beeney:

This letter is in response to your request on behalf of Koninklijke Philips Electronics, N.V. ("Philips"), Sony Corporation of Japan ("Sony") and Pioneer Electronic Corporation of Japan ("Pioneer") for the

issuance of a business review letter pursuant to the Department of Justice's Business Review Procedure, 28 C.F.R. § 50.6. You have requested a statement of the Department of Justice's antitrust enforcement intentions with respect to a proposed arrangement pursuant to which Philips will assemble and offer a package license under the patents of Philips, Sony and Pioneer (collectively, the "Licensors") that are "essential," as defined below, to manufacturing Digital Versatile Discs (DVDs) and players in compliance with the DVD-ROM and DVD-Video formats, and will distribute royalty income among the Licensors.

I. The DVD-ROM and DVD-Video Formats

The Standard Specifications for the DVD-ROM and DVD-Video formats describe the physical and technical parameters for DVDs for read-only-memory and video applications, respectively, [*5] and "rules, conditions and mechanisms" for player units for the two formats. ¹ In either format, the DVD offers storage capacity more than seven times that of a compact disc; a single-layer, single-sided DVD, for example, can store 4.7 billion bytes (4.38 GB) of information including audio, video, text, and data. Employing compression technology, a DVD-Video disc can hold a 135-minute feature film on a single side.

The Licensors, along with a number of other producers of consumer electronics hardware, software, or both, ² established the Standard Specifications. ³ These Standard Specifications appear to implicate the intellectual [*6] property rights of numerous firms.

II. The Proposed Arrangement

The proposed arrangement is embodied in two pairs of licenses: [*7] two separate but substantially identical licenses to Philips from Sony and Pioneer (the "DVD-Video and DVD-ROM Agreement"); ⁴ and a pair of standard licenses from Philips to DVD makers (the "Disc License") and player

¹DVD Specifications for Read-Only Disc (the "Standard Specifications"), Part 3: Video Specifications, Version 1.1 (December 1997), § 3.3.1. You have attached the Standard Specifications as Exhibit A to your letter. DVD-Video, which is described in Part 3 of the Standard Specifications, appears to be a subunit of the DVD-ROM format. The DVD-Video specifications indicate that DVD-Video discs shall comply with Parts 1 and 2 of the Standard Specifications, which describe the disc's physical and file-system characteristics, respectively. *Id.*, § 1.1.

²Each of the Licensors is a leading manufacturer of consumer electronics equipment and software, including both DVD-Video discs and DVD players, and a producer of content, such as feature-length motion pictures, that can be incorporated in DVDs. Upon the completion of the pending sale of its PolyGram N.V. subsidiary to The Seagram Co., Ltd., however, Philips will no longer have a substantial presence in any market for recorded music, film, or other entertainment software, or the production of content for such software.

³In addition to the Licensors, the publishers of the DVD-ROM Specifications are: Hitachi, Ltd.; Matsushita Electric Industrial Co., Ltd.; Mitsubishi Electric Corporation; Thomson Multimedia; Time Warner Inc.; Toshiba Corp.; and Victor Company of Japan, Ltd. While your letter includes information concerning the process by which these formats were established, you have not requested, and this letter does not offer, an opinion on any competitive issues presented by the development of these formats or any other DVD-related format.

⁴The DVD-Video and DVD-ROM Agreements have been modified twice: (1) in letters from Philips to the other Licensors dated January 9, 1998 and accepted by them subsequently; and (2) in a document designated "Amendment No. 1 to the DVD-Video and DVD ROM Agreement" ("Amendment No. 1"). Like the agreements they modify, the Sony and Pioneer versions of the January 9 letter and Amendment No. 1 are substantially the same. You have attached the two DVD-Video and DVD-ROM Agreements and their corresponding modifications as Exhibit D to your letter.

manufacturers (the "Player License").⁵ Through these two sets of licenses, Philips aggregates the Licensors' patents and will disseminate them to users of the DVD-ROM and DVD-Video formats.

A. The patents to be licensed

Under the proposed [*8] arrangement, Philips is licensing from the other Licensors those patents that: (i) they owned or controlled as of specific dates in 1997;⁶ (ii) are entitled to a priority date before December 31, 1996;⁷ and (iii) are "essential," which is defined as "necessary (as a practical matter) for compliance with the DVD[-Video or DVD-ROM] Standard Specifications. " ⁸ In turn, Philips will sublicense those patents, along with its own patents that meet the same criteria, in the Portfolio Licenses for use in making discs or players, respectively, that comply with either of those formats. ⁹

[*9]

Initially, each Licensor has designated its "essential" patents for inclusion in the Portfolio Licenses; there are 115 patents in all for the manufacture of DVD players,¹⁰ and 95 for the manufacture of the discs themselves.¹¹ However, the Licensors have retained a patent expert to review the designated United States patents and make an independent determination as to their "essentiality. " ¹² His determination, reflecting his "best independent judgment," ¹³ is to be based on information he obtains from the Licensors, others in the industry, and the advice of technical experts he may retain. ¹⁴ The review, which is already underway, will not entail an examination of validity. ¹⁵ Should the expert determine that a patent initially designated as "essential" is not, Philips will exclude it from the Portfolio

⁵ You have attached the Player License as Exhibit B to your letter, and the Disc License as Exhibit C. I will refer to the Disc and Player Licenses collectively as the "Portfolio Licenses. "

⁶ The licenses to Philips convey only those patents that were in the Licensors' portfolios as of the date of the license -- in Pioneer's case, October 1, 1997, in Sony's, November 24, 1997. DVD-Video and DVD-ROM Agreement, Arts. 1.06-1.07.

⁷ DVD-Video and DVD-ROM Agreement, Arts. 1.06-1.07. You have confirmed that the term "priority date" means, for any given patent in the Portfolio License, the first date on which the application for that patent, or for a patent on the same invention in another country, was filed. *See* 35 U.S.C. § 119.

⁸ Amendment No. 1, P7. We understand this definition to encompass patents which are technically essential -- *i.e.*, inevitably infringed by compliance with the specifications -- and those for which existing alternatives are economically unfeasible. As discussed below, a less concrete definition of the term "as a practical matter" could give rise to difficult competitive issues. Neither Sony's and Pioneer's licenses to Philips nor the Portfolio Licenses convey rights to patents that are "essential" by virtue of the DVD formats' incorporation of MPEG-2 video compression technology. DVD-Video and DVD-ROM Agreement, Arts. 1.06-1.07; Disc and Patent Licenses, App. 1, Art. 1.07.

⁹ Amendment No. 1, P2.

¹⁰ Player License, Ex. I.

¹¹ Disc License, Ex. I.

¹² You have indicated to us that the Licensors also will retain an expert, under substantially the same conditions, to make the same determinations as to Japanese patents. Unless otherwise noted, any reference in this letter to the U.S. patent expert shall include by implication the Japanese patent expert as well.

¹³ Amendment No. 1, P7.

¹⁴ The expert will be under no obligation to share with the Licensors the information he receives from experts he retains to assist him. Letter to Expert, P5.

¹⁵ Indeed, the licenses from Sony and Pioneer to Philips disavow any "warranty or representation . . . as to the validity or the scope of any patent. " DVD Video and DVD-ROM Agreement, Art. 9.07.

Licenses. ¹⁶ However, licensees that have already taken the Disc or Player License shall have the option to retain their licenses to the newly excluded patent. ¹⁷

[*10]

While one of the license documents indicates that the patent expert is to be "appointed" by Philips, ¹⁸ the letters that the Licensors will send to the expert state that all of them are retaining him. [*11] ¹⁹ Further, the letters state that the expert's conclusions will have no bearing on either his compensation or any Licensor's future retention of him or his law firm. ²⁰

As noted above, the DVD-Video and DVD-ROM Agreements ensure only that the Licensors' "essential" patents with filing dates before December 31, 1996, and which were owned or controlled by the Licensors as of November 24, 1997 (or, in Pioneer's case, October 1, 1997) will be part of the Portfolio Licenses. You have stated to us that, as of December 1, 1998, no Licensor has indicated that it owns or controls an "essential" patent that falls outside these bounds. Should such a patent emerge, however, the DVD-Video and DVD-ROM Agreements commit the Licensors to licensing it, "at fair and reasonable conditions," to any licensee under the Portfolio Licenses, either through Philips or individually. ²¹

B. The joint licensing arrangement

1. The licenses from Sony and Pioneer to Philips

Sony and Pioneer have granted Philips nonexclusive, sublicensable licenses on their [*12] "essential" patents to enable Philips to grant licenses "to all interested parties . . . to manufacture, have made, have manufactured components of, use and sell or otherwise dispose of" discs and players that conform to the Standard Specifications. ²² The licenses obligate Philips to grant licenses on the "essential" patents for use in conformity with the specifications nondiscriminatorially to all interested third-parties. ²³ All three Licensors, however, remain free to license their "essential" patents independently of the Portfolio Licenses, including for uses outside the DVD-ROM and DVD-Video formats. ²⁴

¹⁶ Amendment No. 1, P7. In addition, a letter that the Licensors will each send individually to the expert confirms that the Licensors have agreed that "once the licensing program commences . . . the Licenses shall include those and only those patents which you have determined to be 'Essential.'" Letter to Expert, P1. Sony and Pioneer will reflect any exclusions the expert requires in the next biennial update of the lists of patents that accompany their licenses to Philips. DVD-Video and DVD-ROM Agreement, Article 1.06; Amendment No. 1, P1.

¹⁷ Disc and Player Licenses, App. 1, Art. 2.07.

¹⁸ *Id.*

¹⁹ Letter to Expert, introductory paragraph.

²⁰ *Id.*, P2.

²¹ DVD-Video and DVD-ROM Agreement, Art. 6; Amendment No. 1, P1.

²² DVD-Video and DVD-ROM Agreement, Arts. 2.01, 1.03-1.05. In addition, the licenses authorize Philips to grant non-assertion commitments to makers of integrated circuits and other components specifically designed for inclusion in licensed DVD players. *Id.*, Art. 2.01. This article grants Philips its rights as to "DVD-Products," which in turn are DVD-ROM and DVD-Video discs and players that conform with the formats' Standard Specifications. *Id.*, Arts. 1.03-1.05.

²³ Amendment No. 1, P5.

²⁴ *Id.*, Art. 2.03; Amendment No. 1, P3.

The licenses from Sony [*13] and Pioneer also establish the Portfolio Licenses' royalty rates. The Player License per-unit royalty is to be 3.5% of the net selling price for each player sold, subject to a minimum fee of \$ 7 per unit, which drops to \$ 5 as of January 1,2000. ²⁵ The Disc License royalty is to be \$.042 per disc sold. ²⁶ In addition, each Portfolio License requires a \$ 10,000 initial payment, half of which is creditable against the per-unit royalties. ²⁷ Philips' licenses from Sony and Pioneer separately set the latter two firms' share of these royalties, again on a per-unit basis. The allocation of royalties among the Licensors is not a function of the number of patents contributed to the pool. ²⁸ To ensure the receipt of their agreed royalties, Sony's and Pioneer's independent auditors may audit Philips' books and records up to once a year. ²⁹

While each of the [*14] Licensors retains sole discretion to pursue infringers, the licenses from Sony and Pioneer require each Licensor to notify the others before initiating any enforcement action ³⁰ and provide for sharing of joint infringement litigation expenses. ³¹

2. The Portfolio Licenses

As authorized by its licenses from Sony and Pioneer, Philips' licenses to disc and player manufacturers will be for use in conformity with the Standard Specifications. ³² However, the Portfolio Licenses will notify potential licensees that all the Licensors are "willing to license their respective patent rights for optical disc manufacturing, whether within or outside of the DVD-Video and DVD-ROM Standard Specifications . . . on reasonable terms and conditions." ³³ They will warn potential licensees that licenses from other intellectual property owners may be necessary for compliance with the formats. ³⁴ A "Most Favourable Conditions" clause will [*15] entitle the licensee to the benefit of any lower royalty rate Philips grants to another licensee under "otherwise similar and substantially the same conditions." ³⁵

Each Portfolio License will have a term of ten years from the license's effective date, ³⁶ subject to termination for a limited number of reasons. ³⁷ To verify royalties owed and paid, Philips may appoint an

²⁵ DVD-Video and DVD-ROM Agreement, Art. 5.02, as amended by letter agreements dated January 9, 1998.

²⁶ *Id.*, Art. 5.03.

²⁷ Disc and Player Licenses, Art. 4.01.

²⁸ You have designated the exact allocation of the royalties among the Licensors as confidential.

²⁹ DVD-Video and DVD-ROM Agreement, Art. 7.02.

³⁰ DVD-Video and DVD-ROM Agreement, Art. 4.04.

³¹ *Id.*, Art. 4.03. You have explained to us that this provision is meant to facilitate joint funding by plaintiffs; it does not, for example, provide that any Licensor will subsidize another's litigation.

³² For example, the "Licensed Product" whose manufacture the Disc License authorizes is the "DVD-Video Disc/DVD-ROM Disc," Disc License, App. 1, Art. 1.06, which in turn "conforms to the DVD-Video and DVD-ROM Standard Specifications," *Id.*, Art. 1.02. The Player License adopts the Specifications correspondingly. Player License, App. 1, Arts. 1.05, 1.06.

³³ Player License and Disc License, Preamble, P6.

³⁴ *Id.*, App. 1, Art. 6.

³⁵ *Id.*, App. 1, Art. 5.

³⁶ *Id.*, App. 1, Art. 10.01.

independent accountant to audit its licensees' books and records up to once a year³⁸ and may require licensees to provide the accountant with additional information for that purpose.³⁹ The Portfolio Licenses also require licensees to provide, on request, information for review by a patent expert to determine whether a particular product [*16] infringes any of the licensed patents and, thus, triggers royalty obligations.⁴⁰ The licensees' obligation to provide information to the independent accountant and patent expert extends only to the information necessary to determine the amount of royalties owed or whether they are owed at all.⁴¹

[*17]

One of the grounds on which Philips may terminate a license relates to the licensees' grantback obligation: Portfolio licensees must grant the Licensors and fellow licensees a license, "on reasonable, non-discriminatory conditions comparable to those set forth herein," on any patents they own or control that are "essential" to either disc or player manufacture in conformity with the Standard Specifications.⁴² As noted above, this obligation is reinforced by Philips' right to terminate without notice the license of any licensee that, after having refused to grant a Licensor a license on an "essential" patent it owns, sues that Licensor for infringement of that patent.⁴³

[*18] III. Analysis

As with any aggregation of patent rights for the purpose of joint package licensing, commonly known as a patent pool, an antitrust analysis of this proposed licensing program must examine both the pool's expected competitive benefits and its potential competitive hazards. In particular, one expects that a patent pool "may provide competitive benefits by integrating complementary technologies, reducing transaction costs, clearing blocking positions, and avoiding costly infringement litigation."⁴⁴ At the same time, "some patent pools can restrict competition, whether among intellectual property rights within the pool or downstream products incorporating the pooled patents or in innovation among parties to the pool."⁴⁵ Accordingly, the following analysis addresses (i) whether the proposed licensing program is likely to

³⁷ Philips or its licensee may terminate the license on 30 days' notice for the other party's default, *id.*, Art. 10.02. Philips also may terminate for licensee bankruptcy, *id.*, Art. 10.03, failure to pay royalties, *id.*, Art. 10.04, and without notice in response to a licensee's lawsuit against any Licensor for infringement of an "essential" patent that licensee owns or controls, after the licensee has refused that Licensor's request for a license, *id.*, Art. 10.05.

³⁸ Player License, App. 1, Art. 4.10; Disc License, App. 1, Art. 4.09.

³⁹ Player License, App. 1, Art. 4.11; Disc License, App. 1, Art. 4.10.

⁴⁰ *Id.* We understand this patent expert to be the same "independent patent expert" who undertakes the review of patents for essentiality. Disc and Player Licenses, App. 1, Art. 2.07.

⁴¹ Player License, App. 1, Art. 4.11; Disc License, App. 1, Art. 4.10.

⁴² Disc and Player Licenses, App. 1, Arts. 2.05-2.06. The Licensors also contemplate that, in exchange for an agreement not to assert claims under their "essential" patents against makers of integrated circuits ("ICs") and components for sale to licensed player makers, the IC and component makers will agree not to assert any "essential" patents of their own against the Licensors arising from the manufacture of DVD-Video and DVD-ROM players. DVD-Video and DVD-ROM Agreement, Art. 5.01. Although the language of the Licensors' agreements contemplates that the IC and component makers would effectively abandon their "essential" patent rights as against the Licensors, you have indicated to us that the covenant not to sue would not outlive the Licensors' "essential" patents.

⁴³ Disc and Player Licenses, App. 1, Art. 10.05. Presumably a licensee's refusal to honor its grantback obligation as to one of the Licensors or a fellow licensee would qualify as a terminable default pursuant to Art. 10.02, requiring 30 days' notice and an opportunity to remedy.

⁴⁴ Department of Justice-Federal Trade Commission, *Antitrust Guidelines for the Licensing of Intellectual Property* ("IP Guidelines"), § 5.5.

integrate complementary patent rights and (ii), if so, whether the [*19] resulting competitive benefits are likely to be outweighed by competitive harm posed by other aspects of the program.

A fundamental premise of the following analysis is that the patents to be licensed are valid. This is a legitimate presumption with any patent.⁴⁶ On the other hand, persuasive evidence to the contrary would undermine virtually any licensing arrangement: "A licensing scheme premised on invalid or expired intellectual property rights will not withstand antitrust scrutiny."⁴⁷ Unaccompanied by legitimate intellectual property rights, restrictions on licensors or licensees are highly likely to be anticompetitive. None of the information that you have provided us warrants abandonment of the presumption of validity as to any of the patents to be licensed.⁴⁸ Should the Department subsequently receive information that undercuts this presumption, its enforcement [*20] intentions as to the proposed arrangement might be very different.

[*21]

A. Integration of Complementary Patent Rights

If the Licensors owned patent rights that could be licensed and used in competition with each other, they might have an economic incentive to utilize a patent pool to eliminate competition among them. A pool that served that purpose "would raise serious competitive concerns."⁴⁹ In combining such substitute patents, the pool could serve as a price-fixing mechanism, ultimately raising the price of products and services that utilize the pooled patents. If, on the other hand, the pool were to bring together complementary patent rights, it could be "an efficient and procompetitive method of disseminating those rights to would-be users."⁵⁰ By reducing what would otherwise be three licensing transactions to one, the pool would reduce transactions costs for Licensors and licensees alike. By ensuring that each Licensor's patents will not be blocked by those of the other two, the pool would enhance the value of all three Licensors' patents.

One way to ensure that the proposed pool will integrate only complementary patent rights is to limit the pool to patents that are essential to compliance [*22] with the Standard Specifications. Essential patents by definition have no substitutes; one needs licenses to each of them in order to comply with the standard.

⁴⁵ Letter from Joel I. Klein to Gerrard [sic] R. Beeney, Esq., June 26, 1997 ("MPEG-2 Business Review Letter"), 9 (citing *IP Guidelines*, § 5.5).

⁴⁶ See 35 U.S.C. § 282 (in an action for infringement, "[a] patent shall be presumed valid"); *Genentech, Inc. v. Novo Nordisk, A/S*, 108 F.3d 1361, 1364 n.2 (Fed. Cir. 1997).

⁴⁷ MPEG-2 Business Review Letter, 9 (citing *United States v. Pilkington plc*, 1994 Trade Cas. (CCH) P70,842 (D. Ariz. 1994)).

⁴⁸ At the same time, it is worth noting that the pool does not seem well equipped internally to eliminate any patents whose validity becomes dubious. The proposed arrangement provides no internal screen for catching those patents, either at the outset of the pool or thereafter. The expert's role, for example, is to assess essentiality, not validity. Nor is there a mechanism for weeding out patents later held invalid. In contrast, the pool established for the joint licensing of patents essential to the MPEG-2 compression standard automatically excludes patents conclusively held invalid or unenforceable. See MPEG-2 Business Review Letter at 5. Since the Licensors here are not allocating royalties on a per-patent basis, no Licensor has an incentive to challenge the validity of any particular patent of another.

⁴⁹ MPEG-2 Business Review Letter, 9.

⁵⁰ *Id.*

At the same time, they are complementary to each other; a license to one essential patent is more valuable if the licensee also has licenses to use other essential patents.

A broader inclusion criterion than essentiality carries with it two anticompetitive risks, both arising from the possibility that there may be substitutes for patents included in the pool. Consider, for example, a situation where there are several patented methods for placing DVD-ROMs into packaging -- each a useful complement to DVD-ROM manufacturing technology, but not essential to the standard. A DVD-ROM maker needs to license only one of them; they are substitutes for each other. Inclusion in the pool of two or more of those patents would risk turning the pool into a price-fixing mechanism. Inclusion in the pool of one of the patents, which the pool would convey along with the essential patents, could in certain cases unreasonably foreclose the competing patents from use by manufacturers; because the manufacturers would obtain a license to the one patent [*23] with the pool, they might choose not to license any of the competing patents, even if they otherwise would regard the competitive patents as superior. Limiting a pool to essential patents ensures that neither of these concerns will arise; rivalry is foreclosed neither among patents within the pool nor between patents in the pool and patents outside it.

If our understanding of the criterion "necessary (as a practical matter)" is correct,⁵¹ then it appears that the Licensors intend to license through the pool only complementary patents for which there are no substitutes for the purposes of compliance with the Standard Specifications. Some uncertainty arises from this definition's imprecision: Unlike the MPEG-2 pool, which required actual technical essentiality for eligibility, this pool introduces the concept of necessity "as a practical matter." On its face, this latter standard is inherently more susceptible to subjective interpretation.⁵² An excessively liberal interpretation of it could lead to the inclusion of patent rights for which there were viable substitutes. In that event, the pool could injure competition by foreclosing such substitutes.⁵³

[*24]

Based on what you have told us, however, the definition of "necessary (as a practical matter)" that the expert will be employing is sufficiently clear and demanding that the portfolio is unlikely to contain patents for which there are economically viable substitutes.⁵⁴ Thus, so long as the patent expert applies this criterion scrupulously and independently, it is reasonable to expect that the Portfolio will combine complementary patent rights while not limiting competition between them and other patent rights for purposes of the licensed applications.⁵⁵

[*25]

⁵¹ See *supra*, n.8.

⁵² This is true particularly as to players, which the Standard Specifications describe much less specifically than they do the discs.

⁵³ This is not to say that the Department would challenge such an arrangement without taking into account the possibility that it affords significant efficiencies. *IP Guidelines*, § 5.3. Moreover, the availability of licenses on the Licensors' essential patents independently of the pool might ameliorate some of the potential competitive harm.

⁵⁴ See *supra*, n.8.

⁵⁵ Whether any of the licensed patents might be substitutes for each other in connection with some other application is not an issue here, because the licenses here neither authorize nor impede the use of the licensed patents for any other application.

The structure of this pool, however, creates some concern about the expert's ability to apply this criterion entirely independent of the Licensors. While you have stated that the patent expert will be "independent" and demonstrated that his independence is a term of the licenses from Sony and Pioneer to Philips, the expert is being retained directly by the Licensors, who have an incentive to combine in the pool any of their competing DVD-related patents and to foreclose others' competing patents.⁵⁶ Without more, there would be justifiable skepticism that this structure would ensure a disinterested review of the "essentiality" of the patent rights put forward.

[*26]

However, in furtherance of the provision for independence in the licenses from Sony and Pioneer to Philips, each Licensor has assured the U.S. expert in writing that the expert's compensation and future retention will not be affected by his determinations as to essentiality; the same assurance will go to the Japanese patent expert as well.⁵⁷ These assurances, of course, are no guarantee. Their continuing fulfillment is necessary to the expert's independence and, consequently, to the likelihood that the portfolio will contain only complementary patents without foreclosing competition. Whether they will be sufficient as well as necessary remains to be seen.

Although the patent-expert mechanism is flawed, the Department is willing to base its present enforcement intentions on your representation that the combination of the Licensors' contractual commitment to independence and their written assurances to the expert will insulate him from their interests sufficiently to ensure that the Portfolio Licenses will contain only those patent rights of the [*27] Licensors that all DVD-Video and DVD-ROM licensees will need. In that case, the proposed arrangement would serve the procompetitive purpose of combining complementary technologies into a package that will be likely to lower costs to makers of DVD-Video and DVD-ROM discs and players. If, nevertheless, these assurances prove insufficient either to ensure the expert's ability to function independently and objectively or to ensure that the pool will contain only essential patents, the Department's enforcement intentions as to the proposed arrangement might be very different.

B. Foreclosure of Competition in Related Markets

As mentioned above, the Licensors are competitors in markets vertically related to the licensed technology -- not only in "downstream" markets such as the manufacture of DVD discs and players, but also in the creation of content, such as feature-length films, that is incorporated in DVD discs. Consequently, the question arises whether this pool is likely to impede competition in any of those markets, not only between any given Licensor and licensees, but also among the Licensors themselves.

Based upon what you have told us, the proposed licensing program does not appear [*28] to have any such anticompetitive potential in the markets in which the licensed technology will be used. First, the agreed royalty is sufficiently small relative to the total costs of manufacture that it is unlikely to enable collusion among sellers of DVD players or discs. Second, the proposed program should enhance rather

⁵⁶ Because the royalty allocation is unaffected by each Licensor's share of the patents in the Portfolio License, the Licensors have no financial incentive to exclude each other's non-essential patents. In the MPEG-2 pool, in contrast, the joint licensor, which retained the expert, was an entity separate from the patent owners with no intellectual property of its own at stake. Moreover, the pool members themselves had a strong incentive to exclude non-essential patents, since their share of the royalties was a direct function of the number of essential patents they held.

⁵⁷ Of course, the same assurances to any subsequently retained expert would buttress confidence in his or her independence, as well.

than limit access to the Licensors' "essential" patents. Because Philips must license on a non-discriminatory basis to all interested parties, it cannot impose disadvantageous terms on competitors, let alone refuse to license them altogether. Should the agreed pool royalty prove economically unrealistic, each Licensor's ability to grant licenses on its own to users of the Standard Specifications provides a backstop. Third, the extent of Philips' ability to audit licensees, through independent accountants, is unlikely to afford it anticompetitive access to competitively sensitive proprietary information, such as cost data. Sony's and Pioneer's similarly limited right to an annual audit of Philips' conduct as joint licensor should not create any greater likelihood of collusion. Nor does there seem to be any facet of the proposed program that would facilitate collusion [*29] or dampen competition among the Licensors in the creation of content for software.

C. Effect on Innovation

Because only already-filed "essential" patents and patent applications are required for inclusion in the Portfolio, the program does not discourage the Licensors from continuing research and development that may relate to the standard.⁵⁸ Further, the Licensors are free to license their "essential" patents for purposes that compete with the DVD-Video and DVD-ROM standards.

[*30]

Ordinarily, patent license grantback provisions might be expected to raise the question whether, by reducing licensees' incentives to innovate, they threaten competitive harm that outweighs their procompetitive effects.⁵⁹ Here, however, the proposed grantback provisions are so narrow that they are unlikely to raise significant issues. Their scope is commensurate with that of the Licenses: They cover only "essential" patents. A licensee's non-"essential" improvements remain its own and may be licensed or not, as the licensee wishes. Thus, the grantback obligation seems unlikely to apply to further innovation within the DVD-ROM and DVD-Video formats. Instead, it is far more likely to force cross-licenses, on "reasonable, non-discriminatory conditions comparable to those" of the Portfolio Licenses, from owners of already extant "essential" patents. In requiring licensees to offer the Licensors and fellow licensees access, on reasonable terms, to whatever "essential" patents they own or control, the Portfolio Licenses ensure that no licensee may take advantage of the benefits of the pool while exploiting its own market power over users of the Standard Specifications. The grantback [*31] provision is likely simply to bring other "essential" patents into the Portfolio, thereby limiting holdouts' ability to exact a supracompetitive toll from Portfolio licensees and further lowering licensees' costs in assembling the patent rights essential to their compliance with the Standard Specifications. While easing, though not altogether eliminating, the holdout problem,⁶⁰ the grantback should not create any disincentive among licensees to innovate.

⁵⁸ At the same time, the exclusion of patents with a priority date of December 31, 1996 or later, and those acquired by a Licensor only after November 24, 1997 (October 1, 1997 for Pioneer), could create anticompetitive costs for Portfolio licensees if any Licensor did not honor its commitment to make such patents available at reasonable rates. Transaction costs to licensees would almost certainly be somewhat lower if these later patents were included in the pool, instead of being subject to separate negotiations. However, the fact that this pool might not enable the realization of all potential efficiencies of pooling patents in this area does not mean that the efficiencies that it does create are insubstantial or that the arrangement is anticompetitive or unlawful.

⁵⁹ *IP Guidelines*, § 5.6.

⁶⁰ Any non-manufacturing owner of an "essential" patent, in contrast, can still be a holdout, having no need for either Portfolio License.

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In the current circumstances, the proposed ten-year term of the license does not pose significant concerns. The Portfolio Licenses authorize only a limited field of use for the licensed technology -- the manufacture and sale of products that comply with the Standard Specifications; they do not limit licensees' other options. Licensees may seek presently unknown methods of complying with these standards, or they may support altogether different product standards. The absence of any renewal clause puts potential licensees on notice that they will be facing [*32] a new market-based negotiation for access to the technology on the expiration of the Portfolio Licenses ten years hence. The uncertainty of market conditions at that time makes it impossible to speculate on the degree of power, if any, the Licensors will hold over any future technology licensing market.

IV. Conclusion

Based on the information and assurances that you have provided us, it appears that the proposed arrangement is likely to combine complementary patent rights, thereby lowering the costs of manufacturers that need access to them in order to produce discs and players in conformity with the DVD-Video and DVD-ROM formats. Your assurances and information indicate that the proposed arrangement is not likely to impede competition, either in the licensing or development of technology for use in making DVDs, players, or products that conform to alternative formats, or in the markets in which DVDs and players compete.

For these reasons, the Department is not presently inclined to initiate antitrust enforcement action against the conduct you have described. This letter, however, expresses the Department's current enforcement intention. In accordance with our normal practices, the [*33] Department reserves the right to bring an enforcement action in the future if the actual operation of the proposed conduct proves to be anticompetitive in purpose or effect.

This statement is made in accordance with the Department's Business Review Procedure, 28 C.F.R. § 50.6. Pursuant to its terms, your business review request and this letter will be made publicly available immediately, and any supporting data will be made publicly available within 30 days of the date of this letter, unless you request that part of the material be withheld in accordance with Paragraph 10(c) of the Business Review Procedure.

Sincerely,

Joel I. Klein

ATTACHMENT

July 29, 1998

Honorable Joel I. Klein, Esq.,
Assistant Attorney General,
Antitrust Division,
United States Department of Justice,
10th Street and Constitution Avenue, N.W.,
Washington, D.C. 20530.

Re: Request for Business Review Letter Regarding the Licensing of Patents Essential to DVD-Video and DVD-ROM

Dear Mr. Klein:

On behalf of Koninklijke Philips Electronics, N.V. ("Philips"), Sony Corporation of Japan ("Sony"), and Pioneer Electronic Corporation of Japan ("Pioneer") (and their affiliates which are involved in the patent [*34] licensing program described below) we submit this request for a Business Review pursuant to 28 C.F.R. § 50.6 regarding the proposed arrangement under which certain patents essential to the manufacture and use of DVD-Video and DVD-ROM will be licensed on reasonable and non-discriminating terms (the "Proposed Licensing Program").

DVD (or Digital Versatile Discs) refers to a high density CD-sized optical disc in which signals are encoded and stored in digital form and are then read and reproduced by players using an optical read out beam. Relying on basic CD technology, the DVD discs and players allow for an increase of approximately six times the storage capacity of a typical CD or CD-ROM. DVD-Video and DVD-ROM are two formats relating to high density optical discs which have been described by Philips, Sony, Pioneer and several other companies in the DVD-Specification for Read Only Disc version 1.0 dated August 1996 and in several updates thereto (a copy of the specification is set forth in Exhibit A hereto).

A single DVD format for video and ROM was defined in an open process by participating companies over the course of several years at the request of various industries -- particularly [*35] the computer industry -- which asserted that multiple DVD formats would delay introduction of this new and beneficial product, increase costs, and much like the incompatible BETA and VHS formats, result in losses to consumers who purchased products based on a format which quickly became obsolete. In defining the DVD-Video and DVD-ROM formats, input was solicited and received from a variety of industries and an even wider variety of companies throughout the world.

As the format was developed and refined, it became clear that numerous independent companies had been granted patents which were relevant to DVD-Video and DVD-ROM. The three companies submitting this request actively sought to join the licensing of their patents with the patents of other companies which also claimed to have patents which are essential to DVD-Video and DVD-ROM. To date, those efforts have not resulted in any other companies joining the Proposed Licensing Program. Philips, Sony and Pioneer, however, remain willing to include others having essential patents in the licensing program described below.

The companies submitting this request firmly believe that, in the near future, DVD products will be widely marketed [*36] by a wide variety of companies. We are also convinced that, once these products are manufactured and distributed in volume, there will be great consumer demand for them. We anticipate that the producers and sellers of DVD discs and players will largely be the companies that currently manufacture and sell CDs and the equipment that plays CDs and CD ROMs. Thus, prospective licensees include manufacturers of consumer audio equipment and computer disc drives. Typically, licensees to manufacture DVD discs will be replicators, as is the case with CDs. In sum, the DVD licenses will be offered to the same classes of sophisticated licensees as are CD licenses, and there is every reason to expect that the transfer of this valuable DVD technology will have the same beneficial effects upon the relevant industries that CD licenses had upon the recorded music industry 15 years ago.

In one respect, licensors of DVD technology face risks and uncertainties that were not faced 15 years ago by the creators of CD technology. During the past year, several different formats have been announced that will compete with various applications of DVD for the favor of consumers. For example, Circuit City and others [*37] have developed Digital Video Express (DIVX), a pay-per-play system that allows consumers who have purchased a DIVX-compliant player to purchase a disc at a lower price and to play that disc for a limited period of time without having to return the disc when finished. The disc may later be "re-activated" for additional plays upon payment of additional fees. Various companies have announced that they will offer DIVX discs, including Twentieth Century Fox, the Walt Disney Company, Paramount Pictures, Universal Studios and Dream Works. It is our understanding that DIVX discs will not play on non-DIVX DVD players. In addition, NEC, one of Japan's largest electronics manufacturers, has announced its intention to introduce Multimedia Video File (MMDF), an optical disc format which is expected to compete directly with certain applications of DVD technology. Other new announced products include TeraStor's Near Field Recording (NFR) technology and Advanced Storage Magneto-Optical (ASMO). In short, this is an area in which several well-financed suppliers are prepared to compete aggressively with DVD products. Obviously, there also will be competition among those selling DVD products.

Offering [*38] a patent license for all essential patents of the three companies under the Proposed Licensing Program will provide several pro-competitive benefits, including (1) reducing the uncertainty of the availability of patent licenses so that those who require a license to manufacture or use a DVD-Video or DVD-ROM product are aware that a license from the three companies easily can be obtained; (2) reducing the royalties that likely would be payable if the three companies licensed their essential patents on their own; (3) reducing the cost for each prospective licensee of determining on its own the identities of owners of essential patents and the entities from which licenses which must be obtained; (4) reducing other transaction costs of licensees having to negotiate and execute separate licenses; (5) reducing the transaction costs of essential patent holders offering separate licenses thereby allowing for a reduction in the price of the license; and (6) offering the same royalty rate and other conditions to all interested licensees so that no entity manufacturing or selling a DVD-Video or DVD-ROM product will have a price advantage over any other such entity as a result of entering into [*39] a license for the essential patents of Philips, Sony and Pioneer.

The Proposed Licensing Program will be structured to avoid any countervailing aspects that may be deemed anticompetitive. For example, each patent holder will retain the right to license its patents outside the Proposed Licensing Program under whatever terms and conditions it reaches with any prospective licensee, and each prospective licensee will be informed in writing of its option to negotiate such an individual license under reasonable terms and conditions. The Philips personnel who are responsible for the Proposed Licensing Program will play no role in the marketing of DVD products. An independent expert in the art has been retained to insure that the portfolio of patents that will be licensed under the Program includes only those patents which are essential to DVD-Video and DVD-ROM products. Although Philips, Sony and Pioneer have not been successful in having other companies join their licensing program, they remain willing to include any others having essential patents who wish to join. There will be no royalty payable by the licensee unless a licensed patent would be infringed but for the license, information [*40] which the licensee may be required to disclose to monitor infringement and royalty payments will not be disclosed to any of the licensors, but only to a third party expert retained by the licensors, patents included in the licenses will be specifically identified in

appendices to the license, and Philips, Sony and Pioneer will commit to licensing to any licensee any essential patent rights they may acquire subsequent to the date specified in the license.

Set forth below is a fuller description of the proposed licensing terms and the agreements among the licensors.

The Proposed Patent License

Two licenses (Appended hereto as Exhibits B and C) will be offered, both in substantially the same form. One is for DVD players, the other for DVD discs. A three page "Agreement" sets forth a few basic terms of the license and also specifically incorporates the "Conditions" of the license which are appended to the Agreement.

On the first page of the Agreement, it is specifically noted that Philips, Sony and Pioneer are each willing to license their respective patent rights for optical disc or player manufacturing whether within or outside the standard DVD specifications on reasonable terms [*41] and conditions. Thus, any prospective licensee who is dissatisfied with the terms of the Proposed Licensing Program is assured of this alternative.

Article 2 of the Conditions sets forth the terms of the license grant, and provides for a license under Licensed Patents which are defined in Article 1.07 as all patent rights pertinent to DVD discs or players which Philips has acquired the right to license, which have or are entitled to a priority date prior to January 1, 1997, and which are essential to DVD discs or players. Article 1.07 goes on to define as "essential" those patents which are necessary as a practical matter for compliance with the DVD-Video or DVD-ROM specifications. The license, therefore, includes not only all patents technically necessary to manufacture a product to the standard specifications, but also those which a typical licensee is likely to require. For example, it may be theoretically possible to design around a particular patent at significant additional cost (and without additional benefit), but few, if any, licensees who pay the standard royalty rate for other essential patents would want such patent excluded from the license. Indeed, it is fair to say [*42] that most, if not all, licensees would want such patents included.

Article 2.07 describes the method by which patents are selected for the portfolio license. The prospective licensee is specifically informed that Philips has appointed an independent patent expert to evaluate the patents of the three licensors for "essentiality" and that the portfolio included in the license may be amended from time to time based on the results of that evaluation.¹

In Article 2.03, each licensor agrees to grant a license to each licensee under any essential patent which Philips, Sony or Pioneer acquire the right to license in the future. Thus, to the extent any of the licensors are issued essential patents in the future or other [*43] companies join the proposed licensing program, all licensees are guaranteed a license under any such essential patent.

Articles 2.05 and 2.06 set forth the terms of the licensees' grant of patent rights. For the identical term of the license granted by Philips, Sony and Pioneer, the licensee agrees to grant to the licensors and other licensees (who also agree to the terms of the grant back) a royalty bearing license on essential patents.

¹ Philips has appointed Kenneth Rubenstein, a member of Proskauer Rose LLP of New York, to determine which patents are essential and should be included in the license. Dr. Rubenstein received his Ph.D in plasma physics from the Massachusetts Institute of Technology in 1975 and his J.D. cum laude from New York Law School in 1982. Dr. Rubenstein previously performed a similar function for the licensing of patents essential to MPEG-2 technology and he continues this work.

Thus, the scope of the grant back is virtually identical to the scope of the license itself. The grant back would not create any disincentive to innovate as it specifically allows the licensee to charge a royalty for its grant of a license and would only prevent a particular patent holder from deciding to use its after-acquired patent position to completely block others from competing in a business in which they already have invested substantial resources.

Article 4 sets forth the royalty payments to be made by licensees. The license provides for a \$10,000 payment upon execution of the license (\$5,000 of which may be credited to royalty payments) and a running royalty of \$.05 per disc or 3.5% of the net selling price of a player, with a minimum player [*44] payment of \$7.00 until January 1, 2000 and a minimum of \$5.00 thereafter.²

Article 4 makes plain that no royalties are due unless "a Licensed Patent is utilized" and, therefore, there are no royalty paying obligations regardless of whether the 10-year license is in effect if the licensee has adopted new or different technology that does not utilize any of the patents in the portfolio.

Articles 4.09 and 4.10 provide that licensees must maintain and furnish certain information relevant to issues of infringement and appropriate royalty payments, but specify that such information shall be provided to independent experts rather than to any licensor itself.

The licenses provide for "most favorable nations" terms under which each licensee is assured of receiving the most favorable royalty rate granted any other portfolio licensee under the conditions specified in Article 5. Thus, no similarly situated licensee is given a competitive [*45] advantage by the license over any other such licensee.

Article 10.05 gives each licensor the right to withdraw its own patents from the portfolio license with respect to any licensee which both (1) brings a lawsuit against the licensor for infringement of an essential DVD patent and (2) refuses to license such patents to the licensor on fair and reasonable terms. This provision is necessary to prevent portfolio licensees from taking unreasonable and unfair advantage of the fact that each portfolio licensor already has agreed to license its patent on the open, fair and non-discriminatory terms provided in the portfolio license at royalty rates that are likely considerably lower than what would be payable if patents were licensed individually outside the portfolio license.

Without the provisions of Article 10.05, a portfolio licensee could -- while enjoying the considerable benefits of the portfolio license -- attempt to extract unreasonable terms for licensing its patents as a result of already being licensed under the portfolio license. Article 10.05 merely "evens the playing field," returns the parties to the bargaining position each would have been in but for the portfolio license, [*46] and creates no competitive issues. This is particularly so in light of each portfolio licensors' undertaking to license its patents outside the portfolio license. Thus, a licensee who subjects itself to the provision of Article 10.05 by filing suit and refusing to grant a license on fair and reasonable terms is not denied the right to a license for essential patents, just to a license for essential patents on the favorable terms of the portfolio license.

² Widespread public reports have suggested that the typical disc will retail for approximately \$20-25. The per disc royalty thus amounts to approximately .22% of the retail price of discs, although the royalty typically will be payable by the disc replicator.

Finally, Article 11.04 provides that any disputes involving the license shall be submitted to arbitration in New York and resolved under New York law. This provides for a certain and cost effective method to resolve disputes.

Agreement Among Licensors

The agreements among Philips, Sony and Pioneer relating to the Proposed Licensing Program are set forth in two bilateral Agreements and Amendment No. 1 thereto, one between Sony and Philips and one identical agreement between Pioneer and Philips. The Agreements and Amendments are appended hereto as Exhibit D.

The Agreements basically set forth the terms under which Philips shall license the three companies' essential patents and set out many of the same terms which are incorporated [*47] in the licenses itself and are discussed above. The Agreements make plain that the Proposed Licensing Program does not in any way impede the companies' ability to license their patents on their own under any conditions they may negotiate.

Article 2.01 of the Agreement provides that Philips shall offer the portfolio license to "all interested third parties." Article 5 of Amendment No. 1 further specifies that Philips shall grant licenses "to all interested parties and shall not discriminate against or among potential licensees" although Philips is entitled to seek financial guarantees on royalty payments when required. The Agreements also set out various terms for the collection and distribution of royalties. Although Article 4.03 provides that each party may consult with the others in the event of a good faith belief that an act of infringement has occurred, Article 4.04 provides that each party retains the right to enforce its patents as it sees fit.

Article 7 of Amendment No. 1 sets forth the details of the procedure by which Philips shall retain an independent expert to assure that all patents in the portfolio are essential, and provides the procedure under which patents may be [*48] added to the Proposed Licensing Program.

Conclusion

It is anticipated that DVD-Video and DVD-ROM applications will gain widespread acceptance among consumers in the United States and throughout the world. Intellectual property rights granted by the United States and other sovereign nations to numerous unrelated entities could seriously delay if not block the introduction of this new and significant technology. The Proposed Licensing Program described above eliminates one potential impediment to the implementation of DVD-Video and DVD-ROM by allowing all essential patents of Philips, Sony and Pioneer to be offered in a single, non-discriminatory, fair and cost effective licensing program. The Proposed Licensing Program has been carefully crafted in an effort to avoid any competition concerns which may arise from the combining of patents belonging to independent entities within a single license. We respectfully submit that the Proposed Licensing Program has successfully addressed any competition concerns, and that the pro-competitive aspects of the program far outweigh any potential competition issues which may remain.

We will be available at your convenience to provide any further [*49] information you may require. We very much appreciate the Division's attention to this matter.

Respectfully,

Garrard R. Beeney

1998 DOJBRL LEXIS 15, *49

for Koninklijke Philips
Electronics, N.V.,
Sony Corporation of Japan and
Pioneer Electronic Corporation
of Japan

Load Date: 2014-07-16

Department of Justice Business Review

Letters

End of Document

Exhibit 2

1997 DOJBRL LEXIS 14

Trustees of Columbia University, Fujitsu Limited, General Instrument Corp., Lucent Technologies Inc., Matsushita Electric Industrial Co., Ltd., Mitsubishi Electric Corp., Philips Electronics N.V., Scientific-Atlanta, Inc., and Sony Corp. (collectively the "Licensors"), Cable Television Laboratories, Inc. ("CableLabs"), MPEG LA, L.L.C. ("MPEG LA")

Department of Justice - Antitrust Division

June 26, 1997

Department of Justice Business Review

Letters

Reporter

1997 DOJBRL LEXIS 14 *

Subject: Business Review Letter

June 26, 1997

Core Terms

license, patent, portfolio, licensee, licensor, royalty, video, technology, has, patent holder, entity, was, compression, infringement, digital, encode, grantback, manufacturer, television, fair and reasonable, bitstream, terms and conditions, transmission, partial termination, decode, cost, pool, redundancy, broadcast, innovate

Press Release

[*1] FOR IMMEDIATE RELEASE
THURSDAY, JUNE 26, 1997

JUSTICE DEPARTMENT APPROVES PROPOSAL FOR JOINT LICENSING OF PATENTS ESSENTIAL FOR MEETING VIDEO TECHNOLOGY STANDARD USED IN ELECTRONICS AND BROADCAST INDUSTRIES

WASHINGTON, D.C. -- The Department of Justice today approved a proposal by a group of nine companies and one university that want to create a one-stop-shopping clearinghouse by pooling their patents, which are needed by entities looking to manufacture electronic equipment that stores or transmits compressed video data.

Under the group's proposal, a jointly owned agent known as MPEG LA would license these patents in a single package that would enable manufacturers to meet an international standard known as MPEG-2 video compression technology. The technology standard eliminates redundant information, such as images that are all the same color or figures that do not change from one moment to the next, reducing the amount of data, storage and transmission space required to reproduce video sequences.

Through the licensing agent, manufacturers of products that need to meet the standard will be able to obtain a single license for most of the patents they will need.

The [*2] owners of the essential patents are:

The Trustees of Columbia University

Fujitsu Limited

General Instrument Corp.

Lucent Technologies Inc.

Matsushita Electric Industrial Co., Ltd.

Mitsubishi Electric Corp.

Philips Electronics N.V.

Scientific-Atlanta, Inc.

Sony Corp.

The single license will be available to those who provide products or services that store or transmit video information, including televisions, digital video disks and players, telecommunications equipment; as well as cable, satellite and broadcast television services.

The Department's position was stated in a business review letter from Joel I. Klein, Acting Assistant Attorney General in charge of the Antitrust Division, to counsel for MPEG LA and its owners.

Because meeting the standard would infringe on the patent rights of many different entities, in 1993, a number of firms interested in the standard formed a working group to explore a way to efficiently disseminate the essential intellectual property rights to users of the technology. The group sponsored a well publicized search for essential patents, conducted by an independent patent expert.

The expert and his assistant reviewed about 8000 patent abstracts [*3] and 800 United States patents; the results of his search led to the formation of MPEG LA by and nine owners of essential patents and Cable Television Laboratories Inc.

Under its agreements with the nine essential patent owners, MPEG LA will serve as a licensing agent, offering nonexclusive licenses worldwide to make, use and sell products that meet the MPEG-2 standard under a portfolio of the nine firms' essential patents. The license will tell potential licensees exactly what patents are in the portfolio, that each portfolio patent is available independently from its owner, and that the portfolio does not necessarily contain all the patents the licensee will need in order to comply with the MPEG-2 standard.

In order to ensure that the portfolio contains only truly essential patents, but remains open to additions of other essential patents, the nine essential patent owners have agreed to employ an independent patent expert whenever a dispute arises as to whether a patent in the portfolio is in fact not essential, or the portfolio should include a patent that is not already part of the joint licensing program.

Klein said that it appeared that the licensing program was well designed [*4] to capture all the efficiencies that can come from joint licensing of complementary technologies, while incorporating many facets that should minimize the possibility of competitive harm. In addition to the benefits from the information the portfolio license will convey to licensees, the use of the independent-expert mechanism will help ensure that the portfolio will contain only patents that are truly essential to the MPEG-2 standard, weeding out patents that are competitive alternatives to each other.

Under the Department's Business Review Procedure, an organization may submit a proposed action to the Antitrust Division and receive a statement as to whether the Division will challenge the action under the antitrust laws.

A file containing the business review request and the Department's response may be examined in the Legal Procedure Unit of the Antitrust Division, Suite 215, Liberty Place, 325 7th Street, N.W., U.S. Department of Justice, Washington, D.C. 20004. After a 30-day waiting period, the documents supporting the business review will be added to the file.

Opinion

Gerrard R. Beeney, Esq.
Sullivan & Cromwell
125 Broad Street
New York, NY 10004-2498

Dear Mr. Beeney:

This is [*5] in response to your request on behalf of the Trustees of Columbia University, Fujitsu Limited, General Instrument Corp., Lucent Technologies Inc., Matsushita Electric Industrial Co., Ltd., Mitsubishi Electric Corp., Philips Electronics N.V., Scientific-Atlanta, Inc., and Sony Corp. (collectively the "Licensors"), Cable Television Laboratories, Inc. ("CableLabs"), MPEG LA, L.L.C. ("MPEG LA"), and their affiliates for the issuance of a business review letter pursuant to the Department of Justice's Business Review Procedure, 28 C.F.R. § 50.6. You have requested a statement of the Department of Justice's antitrust enforcement intentions with respect to a proposed arrangement pursuant to which MPEG LA will offer a package license under the Licensors' patents that are essential to compliance with the MPEG-2 compression technology standard, and distribute royalty income among the Licensors.

I. The Proposed Arrangement

A. The MPEG-2 Standard

The MPEG-2 standard has been approved as an international standard by the Motion Picture Experts Group of the International Organization for Standards (ISO) and the International Electrotechnical Commission (IEC) and by the International [*6] Telecommunication Union Telecommunication Standardization Sector ("ITU-T"). It contains nine operative parts. Only Parts 1 (ISO/IEC 13818-1) and 2 (ISO/IEC 13818-2), which deal with systems and video, are relevant to the proposed activity.

Part 1, concerning systems, describes: (a) a syntax and semantics for combining separate video and audio bitstreams into a single bitstream, either a "program" stream for storage on a medium such as a digital

video disk, or a "transport" stream, for transmission of multiple programs; and (b) a demultiplexer for breaking the bitstream down into its constituent video and audio bitstreams.

Part 2 describes (a) a common syntax and semantics of a bitstream containing compressed video, and (b) a decoder for decompressing the bitstream. MPEG-2 video compression allows considerable savings in the amount of data, and thus storage and transmission space, required to reproduce video sequences, by eliminating redundant information both within a particular image, as where a background is of all the same color, and between images, as where particular figures remain unmoved from one moment to the next.¹

[*7]

The video and systems parts of the MPEG-2 standard will be applied in many different products and services in which video information is stored and/or transmitted, including cable, satellite and broadcast television, digital video disks, and telecommunications. However, compliance with the standards will infringe on numerous patents owned by many different entities. Consequently, a number of firms that participated in the development of the standard formed the MPEG-2 Intellectual Property Working Group ("IP Working Group") to address intellectual property issues raised by the proposed standard. Among other things, the IP Working Group sponsored a search for the patents that covered the technology essential to compliance with the proposed standard and explored the creation of a mechanism to convey those essential intellectual property rights to MPEG-2 users.² That exploration led ultimately to an agreement among the Licensors, CableLabs and Baryn S. Futa establishing MPEG LA as a Delaware Limited Liability Company.³

[*8]

Each of the Licensors owns at least one patent that the IP Working Group's patent search identified as essential to compliance with the video and/or systems parts of the MPEG-2 standard (hereinafter "MPEG-2 Essential Patent" or "Essential Patent").⁴ Among them, they account for a total of 27 Essential Patents, which are most, but not all, of the Essential Patents. Pursuant to a series of four proposed agreements, the Licensors will combine their Essential Patents into a single portfolio (the "Portfolio") in the hands of a common licensing administrator that would grant licenses under the Portfolio on a nondiscriminatory basis, collect royalties, and distribute them among the Licensors pursuant to a pro-rata allocation based on each Licensor's proportionate share of the total number of Portfolio patents in the countries in which a particular royalty-bearing product is made and sold.⁵

¹ Notably, neither Part 1 nor Part 2 dictates a particular method for encoding video or programs into the specified syntax and semantics. Users of the standard are thus free to develop and use the encoding method they find most advantageous, while preserving the compatibility necessary to the integrity of the standard.

² The patent search and the use of an independent expert to conduct the search are discussed in greater detail below.

³ Amended and Restated Limited Liability Company Agreement of MPEG LA, L.L.C. ("LLC Agreement"). Previously CableLabs' executive vice president and chief operating officer, Baryn Futa is now Manager of MPEG LA.

⁴ Each of the draft agreements submitted with your letter defines "MPEG-2 Essential Patent" as "any Patent claiming an apparatus and/or a method necessary for compliance with the MPEG-2 Standard [defined generally as the MPEG-2 video and systems standards] under the laws of the country which issued or published the Patent." E.g., MPEG-2 Patent Portfolio License ("Portfolio License"), § 1.18.

⁵ Id., § 5.1.

[*9]

This arrangement is embodied in a network of four proposed agreements: (1) an Agreement Among Licensors, in which the Licensors commit to license their MPEG-2 Essential Patents jointly through a common License Administrator and agree on basic items including the Portfolio license's authorized fields of use, the amount and allocation of royalties, and procedures for adding patents to, and deleting them from, the Portfolio; (2) a Licensing Administrator Agreement between the Licensors and MPEG LA, pursuant to which MPEG LA assumes the tasks of licensing the Portfolio to MPEG-2 users and collecting and distributing royalty income; (3) a license from each Licensor to MPEG LA for the purpose of granting the Portfolio License; and (4) the Portfolio license itself.

B. MPEG LA

Pursuant to the Licensing Administrator Agreement, MPEG LA will: (1) grant a worldwide, nonexclusive sublicense under the Portfolio to make, use and sell MPEG-2 products "to each and every potential Licensee who requests an MPEG-2 Patent Portfolio License and shall not discriminate among potential licensees" ; ⁶ (2) solicit Portfolio licensees; ⁷ (3) enforce and terminate Portfolio license [*10] agreements; ⁸ and (4) collect and distribute royalties. ⁹ For this purpose, each MPEG-2 Licensor will grant MPEG LA a nonexclusive license under its Essential Patents, n10 while retaining the right to license them independently for any purpose, including for making MPEG-2-compliant products. ¹¹

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The Licensing Administrator Agreement places the day-to-day conduct of MPEG LA's business, including its licensing activities, under the sole control of Futa and his staff. The other owners retain some control, however, over "major decisions," including approval of budgets and annual financial statements, extraordinary expenditures, entry into new businesses, mergers and acquisitions, and the sale or dissolution [*11] of the corporation. ¹²

C. The MPEG-2 Portfolio

As noted above, the Portfolio initially will consist of 27 patents, which constitute most, but not all, Essential Patents. These 27 patents were identified in a search carried out by an independent patent expert under the sponsorship of the IP Working Group. Once the MPEG-2 standard was largely in place, the IP Working Group issued a public call for the submission of patents that might be infringed by compliance with the MPEG-2 standard. CableLabs, whose COO Futa was an active participant in the IP Working Group, retained an independent patent expert familiar with the standard and the relevant

⁶ Licensing Administrator Agreement, § 3.2.

⁷ Id., § 3.1.

⁸ Id., § 3.14. The Licensors, however, may veto a planned enforcement action or termination, by a vote of 2/3 of the licensors. Id.

⁹ Agreement Among Licensors, § 2.1.

¹¹ Agreement Among Licensors, § 2.8.

¹⁰ 10 License from Licensor to Licensing Administrator, §§ 2.1-2.5, 2.8. Three of the Licensors, Columbia University, Fujitsu, and Mitsubishi, each own only one Essential Patent.

¹² LLC Agreement, § 7.03.

technology to review the submissions. In all, the expert and his assistant reviewed approximately 8000 United States patent abstracts and studied about 800 patents belonging to over 100 different patentees or assignees. No submission was refused, and no entity or person that was identified as having an essential patent was in any way excluded from the effort in forming the proposed joint licensing program.

The proposed agreement among the Licensors creates a continuing role for an independent expert as an arbiter [*12] of essentiality. It requires the retention of an independent expert to review patents submitted to any of the Licensors for inclusion in the Portfolio ¹³ and to review any Portfolio patent which an MPEG-2 Licenser has concluded is not essential or as to which anyone has claimed a good-faith belief of non-essentiality. ¹⁴ In both cases, the Licensors are bound by the expert's opinion. ¹⁵

The Portfolio's composition may also change for other reasons. A patent will be deleted promptly from the Portfolio upon a final adjudication of invalidity or unenforceability by a tribunal of competent jurisdiction in the country of its issuance. ¹⁶ The expiration of a Licenser's last-to-expire Portfolio patent, or a final adjudication of invalidity or unenforceability of its last remaining Portfolio patent, terminates the Licenser's participation in the Portfolio and the Agreement Among Licensors. [*13] ¹⁷ Each MPEG-2 Licenser may terminate its participation in the Portfolio license on 30 days' notice; however, all existing Portfolio licenses will remain intact. ¹⁸

D. The Portfolio License

The planned license from MPEG LA to users of the MPEG-2 standards is a worldwide, nonexclusive, nonsublicensable license under the Portfolio patents for the manufacture, sale, and in most cases, use of: (1) products and software designed to encode and/or decode video information in accordance with the MPEG-2 standard; (2) products and software designed to generate MPEG-2 program and transport bitstreams; and (3) so-called "intermediate products," such as integrated circuit chips, used in the aforementioned products and software. ¹⁹ The license grant to use encoding-related products and software for recording video information on a "packaged medium," e.g., encoding a motion picture for copying on digital video disks, is separate from [*14] the other grants for the same products and software. ²⁰

¹³ Agreement Among Licensors, § 6.1.

¹⁴ Agreement Among Licensors, § 2.4.2.

¹⁵ However, they need not consult the expert if they agree unanimously in good faith that a submitted patent is an Essential Patent, *id.*, § 2.4.1, or that a Portfolio patent is not essential, *id.*, § 6.1.1.

¹⁶ *Id.*, § 2.5. Although the Licensing Administrator Agreement does not explicitly direct MPEG LA to do so, we understand that Essential Patents will be deleted from the Portfolio as they expire.

¹⁷ *Id.*, § 7.1.

¹⁸ *Id.*, § 2.3.

¹⁹ Patent Portfolio License, §§ 2.1-2.5. The intermediate product license grant as to intermediate products limits the right to use such products to internal development and testing purposes. *Id.*, § 2.1.

²⁰ *Id.*, § 2.4. Whereas most of the royalties are set at \$ 4.00 per licensed product, the royalty for use of encoding products for packaged-medium recordings is measured by the production of packaged media. For packaged media recordings directed to "personal, family or household" use, the royalty is \$.04 per packaged medium times the number of "MPEG-2 Video Events" recorded on it. *Id.*, § 3.1.6.1. For MPEG-2 Packaged Media directed to commercial channels such as rental and broadcast, the royalty is \$.40 per packaged medium times the number of "MPEG-2 Video events" thereon. *Id.*, § 3.1.6.2.

The Portfolio license expires January 1, 2000, but is renewable at the licensee's option for a period of not less than five years, subject to "reasonable amendment of its terms and conditions." ²¹ That "reasonable amendment" may not, however, increase royalties by more than 25%. ²² Each Portfolio licensee may terminate [*15] its license on 30 days' written notice. The per-unit royalties are those agreed upon in the Agreement Among Licensors, but they are subject to reduction pursuant to a "most-favored-nation" clause. ²³ The royalty obligations are predicated on actual use of one or more of the licensed patents in the unit for which the royalty is assessed. ²⁴ The Portfolio license imposes no obligation on the licensee to use only the licensed patents and explicitly leaves the licensee free independently to develop "competitive video products or video services which do not comply with the MPEG-2 Standard." ²⁵

The Portfolio license will list the Portfolio patents in an attachment. ²⁶ It also explicitly addresses the licensee's ability, and possible need, to obtain Essential Patent rights elsewhere. The Portfolio license states that each Portfolio patent is also available for licensing independently from the MPEG-2 Licensor that had licensed it to MPEG [*16] LA ²⁷ and that the license may not convey rights to all Essential Patents. ²⁸

The license's grantback provision requires the licensee to grant any of the Licensors and other Portfolio licensees a nonexclusive worldwide license or sublicense, on fair and reasonable terms and conditions, on any Essential Patent that it has the right to license or sublicense. ²⁹ The Licensors' per-patent share of royalties is the basis for determining a fair and reasonable royalty for the grantback. ³⁰ Alternatively, a licensee that controls an Essential Patent may choose to become an MPEG-2 licensor and add its patent to the Portfolio. ³¹ Failure to honor the grantback requirement constitutes a material breach of the license, giving MPEG LA the right to terminate the license unless the licensee has cured the breach within 60 days after MPEG LA sends it notice of the breach. ³²

²¹ Id., § 6.1.

²² Id.

²³ Id., § 7.7.

²⁴ Id., §§ 2.1-2.5.

²⁵ Id., § 7.8. We understand this to mean that licensees are free also to develop technological alternatives to the MPEG-2 compression standard.

²⁶ Id., § 1.21.

²⁷ Id., § 4.3.

²⁸ Id.

²⁹ Id., § 7.3.

³⁰ Id.

³¹ Id., § 7.4.

³² Id., § 6.2.

A separate provision allows for partial termination of a licensee's Portfolio license as to a particular MPEG-2 Licensor's patents. Pursuant to Section 6.3, an MPEG-2 [*17] Licensor may direct MPEG LA to withdraw its patents from the Portfolio license if the licensee has (a) brought a lawsuit or other proceeding against the MPEG-2 Licensor for infringement of an Essential Patent or an MPEG-2 Related Patent ("Related Patent") and (b) refused to grant the MPEG-2 Licensor a license under the Essential Patent or MPEG-2 Related Patent on fair and reasonable terms and conditions.³³ As with the grantback, the per-patent share of Portfolio license royalties is the basis for determining a fair and reasonable royalty for the licensee's patent.³⁴ Upon the withdrawal of the MPEG-2 Licensor's patents from the licensee's Portfolio license, the licensee may seek a license on the withdrawn patents directly from the MPEG-2 Licensor, which remains subject to its undertaking to the ISO and/or the ITU-T to license on fair and reasonable terms and conditions.³⁵

[*18] II. Analysis

A. The Patent Pool in General

An aggregation of patent rights for the purpose of joint package licensing, commonly called a patent pool, "may provide competitive benefits by integrating complementary technologies, reducing transaction costs, clearing blocking positions, and avoiding costly infringement litigation."³⁶ By promoting the dissemination of technology, patent pools can be procompetitive.³⁷ Nevertheless, some patent pools can restrict competition, whether among intellectual property rights within the [*19] pool or downstream products incorporating the pooled patents or in innovation among parties to the pool.³⁸

A starting point for an antitrust analysis of any patent pool is an inquiry into the validity of the patents and their relationship to each other. A licensing scheme premised on invalid or expired intellectual property rights will not withstand antitrust scrutiny.³⁹ And a patent pool that aggregates competitive

³³ *Id.*, § 6.3. The Portfolio license, like several of the relevant documents, defines "MPEG-2 Related Patent" as "any Patent which is not an MPEG-2 Essential Patent but which has one or more claims directed to an apparatus or a method that may be used in the implementation of a product or a service designed in whole or in part to exploit the MPEG-2 Standard under the laws of the country which issued or published the Patent." *Id.*, § 1.23. Read literally, this definition could encompass any patent capable of being employed in a product or service that exploits the MPEG-2 standard. At the extreme, it would take in any patent relevant not only to MPEG-2 applications but also to unrelated products, as well as patents on products or services that someone might build into an MPEG-2 Royalty Product -- for example, a patented informational display on a DVD player.

You have informed the Department, however, that such a broad, literal interpretation was not the intent of the drafters of the Patent Portfolio License and that your clients would construe the term "MPEG-2 Related Patents" to encompass only patents which, as applied, constitute implementations of the MPEG-2 standard. Further, you have told the Department that it is exceedingly unlikely that any Related Patent would have any utility for any application other than MPEG-2.

³⁴ *Id.*

³⁵ Similarly, Sections 2.9 and 2.10 of the Agreement Among Licensors authorize each Licensor to instruct MPEG LA to withhold its Portfolio patents from any potential licensee that either: (1) has sued the Licensor for infringement of an Essential Patent or a Related Patent, and the Licensor has decided to counter with a claim of infringement of its Portfolio patents; or (2) has been sued by the Licensor for infringement of the Portfolio patents. We understand these provisions to apply only to ongoing litigation and not to authorize the vindictive withholding of Portfolio patents after the infringement suit has been resolved.

³⁶ Department of Justice-Federal Trade Commission, Antitrust Guidelines for the Licensing of Intellectual Property ("IP Guidelines"), § 5.5.

³⁷ *Id.*

³⁸ *Id.*

technologies and sets a single price for them would raise serious competitive concerns. On the other hand, a combination of complementary intellectual property rights, especially ones that block the application for which they are jointly licensed, can be an efficient and procompetitive method of disseminating those rights to would-be users.

Based on your representations [*20] to us about the complementary nature of the patents to be included in the Portfolio, it appears that the Portfolio is a procompetitive aggregation of intellectual property. The Portfolio combines patents that an independent expert has determined to be essential to compliance with the MPEG-2 standard; there is no technical alternative to any of the Portfolio patents within the standard. Moreover, each Portfolio patent is useful for MPEG-2 products only in conjunction with the others.⁴⁰ The limitation of the Portfolio to technically essential patents, as opposed to merely advantageous ones, helps ensure that the Portfolio patents are not competitive with each other and that the Portfolio license does not, by bundling in non-essential patents, foreclose the competitive implementation options that the MPEG-2 standard has expressly left open.

[*21]

The continuing role of an independent expert to assess essentiality is an especially effective guarantor that the Portfolio patents are complements, not substitutes. The relevant provisions of the Agreement Among Licensors appear well designed to ensure that the expert will be called in whenever a legitimate question is raised about whether or not a particular patent belongs in the Portfolio; in particular, they seem designed to reduce the likelihood that the Licensors might act concertedly to keep invalid or non-essential patents in the Portfolio or to exclude other essential patents from--admission to the Portfolio.

B. Specific Terms of the Agreements

Despite the potential procompetitive effects of the Portfolio license, we would be concerned if any specific terms of any of the contemplated agreements seemed likely to restrain competition. Such possible concerns might include the likelihood that the Licensors could use the Portfolio license as a vehicle to disadvantage competitors in downstream product markets; to collude on prices outside the scope of the Portfolio license, such as downstream MPEG-2 products; or to impair technology or innovation competition, either within [*22] the MPEG-2 standard or from rival compression technologies. It appears, however, that the proposed arrangement will not raise any significant competitive concerns.

1. Effect on Rivals

There does not appear to be any potential for use of the Portfolio license to disadvantage particular licensees. The Agreement Among Licensors commits the Licensors to nondiscriminatory Portfolio licensing, and the Licensing Administrator agreement both vests sole licensing authority in MPEG LA and explicitly requires MPEG LA to offer the Portfolio license on the same terms and conditions to all would-be licensees. Thus, maverick competitors and upstart industries will have access to the Portfolio

³⁹ See, e.g., *United States v. Pilkington plc*, 1994-2 Trade Cas. (CCH) P 70,842 (D. Ariz. 1994) (consent decree resolving antitrust suit against exclusive licenses premised on technology covered by expired patents).

⁴⁰ The Department presumes from the information you have provided us that the Portfolio patents are valid. Should this prove not to be so, the Department's analysis and enforcement intentions would likely be very different. As noted above, the Agreement Among Licensors provides for the deletion from the Portfolio of licenses held invalid or unenforceable.

on the same terms as all other licensees. The Portfolio license's "most-favored-nation" clause ensures further against any attempt to discriminate on royalty rates.⁴¹

Although it offers the Portfolio patents only as a package, the Portfolio license does not appear to be an illegal tying agreement. The conditioning of a license for one intellectual property right on the license of a second such right could be a concern where its effect was to foreclose competition from [*23] technological alternatives to the second. In this instance, however, the essentiality of the patents -- determined by the independent expert -- means that there is no technological alternative to any of them and that the Portfolio license will not require licensees to accept or use any patent that is merely one way of implementing the MPEG-2 standard, to the detriment of competition. Moreover, although a licensee cannot obtain fewer than all the Portfolio patents from MPEG LA, the Portfolio license informs potential licensees that licenses on all the Portfolio patents are available individually from their owners or assignees. While the independent expert mechanism should ensure that the Portfolio will never contain any unnecessary patents, the independent availability of each Portfolio patent is a valuable failsafe. The list of Portfolio patents attached to the Portfolio license will provide licensees with information they need to assess the merits of the Portfolio license.

2. Facilitation of Collusion

From what you have told us, there does not appear to be anything in the proposed agreements that is likely to facilitate collusion among Licensors or licensees in any market. [*24] Although MPEG LA is authorized to audit licensees,⁴² confidentiality provisions prohibit it from transmitting competitively sensitive information among the Licensors or other licensees.⁴³ Further, since the contemplated royalty rates are likely to constitute a tiny fraction of MPEG-2 products' prices, at least in the near term, it appears highly unlikely that the royalty rate could be used during that period as a device to coordinate the prices of downstream products.

3. Effect on Innovation

It further appears that nothing in the arrangement imposes any anticompetitive restraint, either explicitly or implicitly, on the development of rival products and technologies. Nothing in the Agreement Among Licensors discourages, either through outright prohibition or economic incentives, any Licensor from developing or supporting a rival standard. As noted above, the Portfolio license explicitly leaves licensees free independently to make products that do not comply with the MPEG-2 standard and premises royalty obligations on actual use of at least one Portfolio patent. [*25]⁴⁴ Since the Portfolio includes only Essential Patents, the licensee's manufacture, use or sale of MPEG-2 products will necessarily infringe the Portfolio patents. By weeding out non-essential patents from the Portfolio, the independent-expert mechanism helps ensure that the licensees will not have to pay royalties for making MPEG-2 products that do not employ the licensed patents.

⁴¹ Portfolio License, § 7.7.

⁴² Licensing Administrator Agreement, § 3.15; Portfolio License, § 3.9.2.

⁴³ Portfolio license, § 5.1.

⁴⁴ Cf. *United States v. Microsoft Corp.*, 1995-2 Trade Cas. (CCH) P 71,096 (D.D.C. 1995) (consent decree resolving suit against, among other things, use of per-processor royalty for license of dominant operating system).

The license's initial duration, to January 1, 2000, does not present any competitive concern. While the open-ended renewal term of "no less than five years" holds open the possibility of a perpetual license, its competitive impact will depend substantially on whether any of the "reasonable amendments" made at that time increase the license's exclusionary impact. While the term "reasonable" is the Portfolio license's only limitation on the Licensors' ability to impose onerous non-royalty terms on licensees at renewal time, the 25% cap on royalty increases and the "most-favored-nation" [*26] clause appear to constrain the Licensors' ability to use royalties to exploit any locked-in installed base among its licensees.

Nor does the Portfolio license's grantback clause appear anticompetitive. Its scope, like that of the license itself, is limited to Essential Patents. It does not extend to mere implementations of the standard or even to improvements on the essential patents.⁴⁵ Rather, the grantback simply obliges licensees that control an Essential Patent to make it available to all, on a nonexclusive basis, at a fair and reasonable royalty, just like the Portfolio patents. This will mean that any firm that wishes to take advantage of the cost savings afforded by the Portfolio license cannot hold its own essential patents back from other would-be manufacturers of MPEG-2 products. While easing, though not altogether clearing up, the holdout problem,⁴⁶ the grantback should not create any disincentive among licensees to innovate. Since the grantback extends only to MPEG-2 Essential Patents, it is unlikely that there is any significant innovation left to be done that the grantback could discourage.⁴⁷ The grantback provision is likely simply to bring other Essential Patents [*27] into the Portfolio, thereby limiting holdouts' ability to exact a supracompetitive toll from Portfolio licensees and further lowering licensees' costs in assembling the patent rights essential to their compliance with the MPEG-2 standard.

In different circumstances, the right of partial termination set forth in Section 6.3 of the Portfolio license could raise difficult competition issues. That section provides that, on instruction from any Licensors, MPEG LA, [*28] pursuant to its obligations under the Licensing Administrator Agreement, shall withdraw from a particular licensee's portfolio license that Licensors' patent or patents if the licensee has sued the Licensors for infringement of an Essential Patent or a Related Patent and refused to grant a license on the allegedly infringed patent on "fair and reasonable terms."

Of course, a licensee's refusal to license an Essential Patent on fair and reasonable terms, as required by Section 7.3 of the Portfolio License, is grounds for termination of the Portfolio license altogether. Even though MPEG LA may choose not to exercise its right to terminate, a Licensors that has been denied a license may invoke the less drastic partial termination provision, which is mandatory on MPEG LA. Partial termination would force the licensee to negotiate with the Licensors as if the pool had never existed. Thus, while the partial termination right leaves the licensee no worse off than it was in the absence of the pool, it enforces the Essential Patent grantback, which, as discussed above, appears procompetitive.

The right of partial termination could have a very different impact on a Portfolio licensee that owns [*29] a Related Patent. No matter how attractive the licensee's patented implementation of the

⁴⁵ Consequently, much of the section on grantbacks in the IP Guidelines is not directly applicable to this provision. The ultimate question, though, is the same: whether, by reducing licensees' incentives to innovate, the grantback causes competitive harm that outweighs its procompetitive effects. See IP Guidelines, § 5.6.

⁴⁶ Any non-manufacturing owner of an Essential Patent, in contrast, can still be a holdout, having no need for the Portfolio license.

⁴⁷ Improvements on MPEG-2 Essential Patents and technological alternatives to the Essential Patents would not be Essential Patents themselves and would not be subject to the grantback. Therefore, the grantback should not discourage their development.

MPEG-2 standard may be, by definition the Related Patent will not be essential to compliance with the standard. And, not being essential, the patent is not subject to the Section 7.3 grantback. If the Portfolio licensee that owns a Related Patent chooses not to license others to use its technology, those others may still have alternatives to choose from. But if a Licensors chooses to infringe the Portfolio licensee's Related Patent after having been denied a license, the Portfolio licensee's decision to sue for infringement could cause it to become unable, at least temporarily, to comply with the MPEG-2 standard.

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The MPEG-2 Licensors is not entirely unconstrained: Importantly, as you have pointed out, its undertakings to the ISO and/or the ITU-T obligate it to license on fair and reasonable terms. However, it is not clear that this general commitment alone deprives the Licensors of the ability to impair competition. The partial termination right may enable Licensors to obtain licenses on Related Patents at royalty levels below what they would have been in a competitive market. Consequently, the partial termination right may dampen licensees' incentives to invest in research and development of MPEG-2 implementations, undercutting somewhat the benefits of the openness of the MPEG-2 standard and the prospects for improvements on the Essential Patents.

This impact on the incentive to innovate within the MPEG-2 standard would be of particular concern were the partial termination right designed to benefit all portfolio licensees. In that event, the partial termination right would function much like a compulsory grantback into the Portfolio. Licensees that owned Related Patents would not be able to choose among and negotiate freely with potential users of their inventions. The licensees' potential [*31] return from their R&D investments could be curtailed drastically, and the corresponding impact on their incentive to innovate could be significant.

Here, however, the partial termination right, unlike the grantback, protects only the Licensors. Other portfolio licensees have no right under the pool license to practice fellow licensees' inventions. And the Licensors are likely to be restrained in exercising their partial termination rights because the development of Related Patents will enhance MPEG-2 and, thus, the value of the Portfolio. The long-term interest of the Licensors is generally to encourage innovation in Related Patents, not to stifle it.

Moreover, the partial termination right may have procompetitive effects to the extent that it functions as a nonexclusive grantback requirement on licensees' Related Patents. It could allow Licensors and licensees to share the risk and rewards of supporting and improving the MPEG-2 standard by enabling Licensors to capture some of the value they have added to licensees' Related Patents by creating and licensing the Portfolio. ⁴⁹ In effect, the partial termination right may enable Licensors to realize greater returns on the Portfolio [*32] license from the licensees that enjoy greater benefits from the license, while maintaining the Portfolio royalty at a level low enough to attract licensees that may value it less. This in turn could lead to more efficient exploitation of the Portfolio technology.

⁴⁸ Since, as noted in note 33 above, it is exceedingly unlikely that a Related Patent would ever have any utility outside the MPEG-2 standard, it is correspondingly unlikely that an owner of a Related Patent would ever have cause to sue an MPEG-2 Licensors for infringement of that patent in connection with the manufacture, use or sale of anything other than MPEG-2-related products or services. If Section 6.3 were used in response to such an infringement action, we could have serious concerns.

⁴⁹ See IP Guidelines, § 5.6.

Therefore, in light of both its potentially significant procompetitive effects and the limited potential harm it poses to Portfolio licensees' incentives to innovate, the partial-termination clause appears on balance unlikely to be anticompetitive.

III. Conclusion

Like many joint licensing arrangements, the agreements you have described for the licensing of MPEG-2 Essential Patents are likely to provide significant cost savings to Licensors and licensees alike, substantially reducing the time and expense that would otherwise be required to disseminate the rights to each MPEG-2 Essential Patent to each would-be licensee. Moreover, the proposed agreements that will govern the licensing arrangement have features designed to enhance the usual procompetitive effects and mitigate potential anticompetitive dangers. The limitation of the Portfolio to technically essential patents and [*33] the use of an independent expert to be the arbiter of that limitation reduces the risk that the patent pool will be used to eliminate rivalry between potentially competing technologies. Potential licensees will be aided by the provision of a clear list of the Portfolio patents, the availability of the Portfolio patents independent of the Portfolio, and the warning that the Portfolio may not contain all Essential Patents. The conditioning of licensee royalty liability on actual use of the Portfolio patents, the clearly stated freedom of licensees to develop and use alternative technologies, and the imposition of obligations on licensees' own patent rights that do not vitiate licensees' incentives to innovate, all serve to protect competition in the development and use of both improvements on, and alternatives to, MPEG-2 technology.

For these reasons, the Department is not presently inclined to initiate antitrust enforcement action against the conduct you have described. This letter, however, expresses the Department's current enforcement intention. In accordance with our normal practices, the Department reserves the right to bring an enforcement action in the future if the actual [*34] operation of the proposed conduct proves to be anticompetitive in purpose or effect.

This statement is made in accordance with the Department's Business Review Procedure, 28 C.F.R. § 50.6. Pursuant to its terms, your business review request and this letter will be made publicly available immediately, and any supporting data will be made publicly available within 30 days of the date of this letter, unless you request that part of the material be withheld in accordance with Paragraph 10(c) of the Business Review Procedure.

Sincerely,

Joel I. Klein

ATTACHMENT

April 28, 1997

Honorable Joel I. Klein,
Acting Assistant Attorney General,
Antitrust Division,
United States Department of Justice,
10th Street & Constitution Avenue, N.W.,
Washington, D.C. 20530.

Re: Request for Business Review Letter Regarding the Licensing of Essential Patents for MPEG-2 Technology

Dear Mr. Klein:

On behalf of the Trustees of Columbia University in the City of New York ("Columbia"), Cable Television Laboratories, Inc. ("CableLabs"), Fujitsu Limited ("Fujitsu"), General Instrument Corporation ("General Instrument"), Lucent Technologies Inc. ("Lucent"), Matsushita Electric Industrial Co., [*35] Ltd. ("Matsushita"), Mitsubishi Electric Corporation ("Mitsubishi"), MPEG LA, L.L.C. ("MPEG LA"), Philips Electronics N.V. ("Philips"), Scientific-Atlanta, Inc. ("Scientific-Atlanta"), and Sony Corporation ("Sony") (and their affiliates which are involved in the patent licensing program described below), we submit this request for a Business Review pursuant to 28 C.F.R. § 50.6 regarding the proposed arrangement under which certain patents essential to the MPEG-2 compression technology standard will be licensed in a single portfolio license and royalties distributed (the "proposed licensing program").

MPEG-2 is a standard relating to digital audio video compression and related systems standard adopted jointly by the International Organization for Standards ("ISO"), an entity organized under the auspices of the United Nations, and the International Telecommunications Union-Telecommunications Sector ("ITU-T") as ISO/IEC 13818-1 and 13818-2 (Exhibit A hereto). As described in greater detail below, MPEG-2 is a flexible and open standard which provides a technique for eliminating redundant information from a video signal to conserve transmission resources and storage space on storage media [*36] such as optical discs. Certain entities which have been determined by an independent expert to have patents claiming an apparatus or method necessary for compliance with the MPEG-2 standard propose to license their patents in a single non-exclusive and non-discriminatory license under the terms and conditions described in this letter and the Exhibits hereto.¹

The single license will provide a number of pro-competitive benefits, including (1) reducing the uncertainty of the availability of patent licenses so that those who require a license to manufacture an MPEG-2 product are aware that such a license can easily be obtained; (2) reducing the royalties [*37] that likely would be payable if each essential patent holder licensed its patent (s) on its own; (3) reducing the substantial cost for each prospective licensee of determining on its own the identity of essential patent holders from whom a license must be obtained; (4) reducing the other transaction costs of licensees having to negotiate and execute multiple licenses; (5) reducing for essential patent holders the cost of providing licenses thereby allowing licenses to be offered at a lower price; and (6) offering the same royalty to all interested licensees on non-discriminatory terms so that no entity manufacturing or selling MPEG-2 products will have a price advantage over any other entity as a result of entering into a patent license for MPEG-2 essential patents.

The proposed licensing program has been structured to avoid any countervailing aspects that may be deemed anticompetitive. For example, each patent holder retains the right to license its patent (s) outside the licensing program and each prospective licensee is informed in writing of its option to negotiate individual licenses rather than accept the portfolio license, each licensor has signed and filed with the ISO (and/or [*38] the ITU-T) an undertaking to make licenses available on fair, reasonable and non-

¹ Entities with one or more essential patents are Columbia, Fujitsu, General Instrument, Lucent, Matsushita, Mitsubishi, Philips, Scientific-Atlanta and Sony (collectively "the essential patent holders"). This letter also is submitted on behalf of MPEG LA, the entity which proposes to license the essential patents, and on behalf of CableLabs which initially financed and otherwise organized the efforts to identify essential patent holders and to provide a single patent portfolio license. CableLabs also is an investor in MPEG LA.

discriminatory terms and conditions, extreme care has been taken to insure that the proposed licensing program includes only blocking or essential patents and a structure has been devised both to remove from the program any patents hereafter shown to be non-essential and to include at a later date any other patents that are deemed essential. No entity holding essential patents which expressed interest has been denied the opportunity to license its patents in the proposed program, no restrictions whatsoever are placed by the proposed license on the method by which licensees may implement the MPEG-2 standard, no royalty is payable by licensees unless a licensed patent would be infringed but for the license, there is no "up-front" payment required of licensees as a condition to obtaining a license, books and records of licensees may be audited (to determine whether appropriate royalties have been paid) only by an independent certified public accountant who is forbidden to disclose to any patent holder any information learned in the audit which may be competitively sensitive, caps are placed on the amount [*39] by which royalties may increase upon renewal of the license by the licensee, and while licensees are required to offer to the patent licensors and other portfolio licensees a license on any essential MPEG-2 patents the licensee may hold, that requirement allows the licensee to insist on the payment of reasonable royalties and other fair and reasonable terms and conditions.

In the sections that follow, we explain the MPEG-2 technology and its applications, other available compression technologies, the process by which MPEG-2 became an ISO/IEC standard, the procedure for selecting essential patents to be included in the proposed licensing program, and describe various features of the documents which establish the proposed licensing program.

I. MPEG-2 Technology and its Applications

The transmission of information through digital rather than analog systems has widely been recognized as vastly superior for a number of reasons including the ability to interact with, manipulate and process a digital transmission, and the fact that digital transmissions can be stored, retrieved, transmitted and received virtually problem-free as compared with analog signals. As the applications [*40] for digital transmissions have grown from faxes and pre-recorded music to motion pictures, cable and terrestrial broadcast television, direct broadcast satellite and the like, the need to "compress" digital information or decrease the amount of bits that must be stored or transmitted also has grown. MPEG-2 provides a process which compresses the amount of digital information that must be stored or transmitted by eliminating redundancies in the stream of 0's and 1's which represent the information to be encoded and decoded.

MPEG-2 reduces the amount of information which must be encoded and decoded by eliminating both spatial and temporal redundancies in the encoded bitstream. For example, a motion picture is typically comprised of 24 frames per second; a television camera typically generates 30 frames per second. In either case, a single frame will typically be comprised of identical information (spatial redundancy) such as a frame of a uniformly blue sky with a single white cloud. Identical information also generally appears from frame to frame (temporal redundancy), such as a frame of a person's face in which over several frames the only change is the wink of an eye. MPEG-2 provides [*41] a method by which these redundancies -- the blue sky and the face characteristics which do not change -- are not repeated in the encoded bit stream in order to produce the identical effect as if the redundant information had been encoded.

The MPEG-2 video standard applies to both progressive scan video such as that used in computer screens and high definition television and to interlaced video such as that used in conventional television.

A major difference between MPEG-1 and MPEG-2 is that the latter provides a method for interlaced scan compression.²

[*42]

While the MPEG-2 standard consists of nine operative parts, the proposed licensing program is limited to essential patents relating to the video and systems sections.³

The MPEG-2 video and systems applications (hereafter "MPEG-2 standard") are exceedingly flexible. It in no way specifies any product parameters whatsoever other than the format necessary to compress digital bit streams in the encoding process and then to decode the stream. In effect, the MPEG-2 video standard sets no hardware requirements but rather sets out broad functional requirements regarding how the bit stream must "look" (bitstream syntax) and what the contents of the bitstream "mean" (bitstream semantics). Because of the flexibility of the standard, however, certain constrained parameters are set to assure interoperability among the multiple MPEG-2 applications. Thus, profiles and levels are [*43] defined in the MPEG-2 specifications which provide for certain characteristics of the encoded picture such as resolution, bit rate, etc.

The MPEG-2 systems section also proscribes no hardware requirements but sets forth the bitstream syntax and semantics for combining separate video and audio bitstreams into a single bitstream for storage and transmission, and describes a demultiplexing (or unbundling) process for returning the bitstream to its constituent audio and video components for decoding and playing.

Just as the MPEG-2 standard places no limits on product designs or features, it also allows for virtually limitless applications. MPEG-2 is likely to be used world-wide in the next generation of digital television. The United States HDTV specifications accepted by the Federal Communications Commission include MPEG-2, and the technology may also be used in Europe for the next generation system to replace HD-MAC and in Japan in the system that replaces MUSE.

MPEG-2 also is expected to be used by cable television and multichannel multipoint distribution providers to increase the number of program services that can be transmitted over a wire or wireless network. In addition to increasing [*44] by a significant factor the number of programming services

² MPEG-2 eliminates spatial redundancy within a frame or field by dividing the frames or fields into 8X8 blocks of pixels or pels. A two dimensional discrete cosine transformation ("DCT") is then applied independently to each block which transforms the pels into certain spatial frequency domain coefficients. The DCT is a fast and inexpensive computation which concentrates the information contained in an 8X8 block of pels into a small number of coefficients. Through a procedure called quantization, many of the DCT coefficients are set to zero in the bitstream coding. This is accomplished by "rounding" high precision values to the nearest lower precision value of a set of permissible values. Compression of the data results from transmitting to a decoder only the non-zero quantized DCT coefficients and coding their magnitude and location within the block using a technique called run-level pair encoding. MPEG-2 reduces temporal redundancy between consecutive fields or frames by measuring and then transmitting to the decoder an interframe or interfield difference signal referred to as a prediction error determined by comparing 16X16 or 16X8 blocks of pels. The prediction error is transmitted using the same basic DCT technique referred to above. As an example of the openness of the MPEG-2 standard, it does not prescribe the mathematical algorithm which must be employed at the encoder so long as the algorithm which is chosen produces a video stream that is within the specified syntax. For example, there are numerous algorithms available for performing the DCT; the MPEG-2 standard does not dictate use of one over another. Licensees are therefore offered numerous choices which can affect the cost of implementation and quality of the decoded picture. The MPEG-2 standard obviously is quite complex. A more detailed description is set out in Appendix B hereto.

³ Also included are specifications on audio, conformance, software, digital storage media-command and control, non-backward compatible audio, real time interface and digital storage media-command and control conformance. The video and system parts are believed to have far wider significance than any other part.

which can be transmitted per conventional channel, e.g. by a factor of 6, MPEG-2 can be used to improve the quality of both the audio and video signal that is transmitted.

A third expected application of MPEG-2 is use in direct broadcast satellite transmissions. As with its use in CATV, MPEG-2 will allow the transmission of a far greater number of programming services as well as improve the quality of signal transmissions.

In addition to real time broadcast, MPEG-2 is expected to be widely employed in digital storage media. MPEG-2 has been selected for DVD and will most likely be used in DVD movies as well as in DVD-ROM. In addition to the CD-sized DVD discs, MPEG-2 may also be used to conserve storage capacity on larger magnetic disks or other storage media.

MPEG-2 also may be used to significantly improve the quality of video teleconferencing. Teleconferencing in digital rather than analog transmission is capable of improving both the video and audio quality of the process.

Thus, at present, MPEG-2 is expected to have widespread application in a variety of fields. Therefore, potential licensees of the proposed licensing [*45] program include, for example, real time broadcast camera manufacturers which may incorporate MPEG-2 encoders, real time broadcasters, television manufacturers which decide to incorporate MPEG-2 decoders within the set, manufacturers of set top boxes for CATV or direct broadcast satellite transmissions, content providers for storage media such as DVD and DVD-ROM, computer manufacturers who decide to provide DVD-ROM drives, DVD player manufacturers, manufacturers of teleconferencing equipment and others.

II. Other Compression Technologies

While there are numerous other compression technologies, we are unaware of any single technology which provides the broad applications of MPEG-2. MPEG-1, a subset of the MPEG-2 standard, is directed at non-interlaced video such as that used in computer displays. MPEG-1 is not optimal for interlaced scan, and products incorporating only MPEG-1 and not MPEG-2 are not included in the proposed licensing program.

Several proprietary progressive scan digital video compression standards also have been developed. Intel's system is called INDEO © and Apple Computer's is called QUICKTIME ©. A digital television system developed by General Instrument, [*46] called the DIGICIPHER II © system, is compliant with MPEG-2 at the video and transport layers. Motion JPEG developed by the Joint Photographic Experts Group, can reduce spatial redundancy but not temporal redundancy. ITU standards H-261 and H-263 provide compression at low bit rates suitable for video phone and video conferencing use.

Thus, while any particular participant in any industry is free to employ any existing available technology or develop its own proprietary compression specifications, MPEG-2 provides a flexible, effective and, as shown below at least with respect to intellectual property, cost effective alternative. In light of the inclusion of MPEG-2 in the HDTV and DVD standards, it is anticipated that MPEG-2 will be the compression standard of choice to insure compatibility within those industries.

Other technologies and techniques are being developed. For example, the Moving Picture Experts Group currently is working on MPEG-4.⁴ It is currently anticipated that a draft of MPEG-4 will be available by November of this year and that the new standard may be published a year or so thereafter.

[*47]

MPEG-4 seeks, among other things, to improve on coding efficiencies and adding functionalities. MPEG-4 likely will be complementary to MPEG-2. MPEG-4 also seeks to provide interactivity among various industries including wireless communications, interactive computer applications and other audio-visual data.

III. Selection of the MPEG-2 Standard and Essential Patents

The Moving Picture Expert Group ("MPEG") was organized at an ISO/IEC meeting in January of 1988 and first met in May of that year. The MPEG process of discussing proposed standards and methods of implementation has always been open to all interested parties as evidenced by the August 1991 MPEG meeting in California which included 160 delegates representing 89 entities from 16 countries. At various times, any interested parties were given the opportunity to prepare solutions and methods to meet the MPEG goals. Many entities proposed various technologies, and major decisions typically were made by international ballot.

The requirements for MPEG-2 were set at the end of 1990 at a meeting in Berlin, Germany, attended by 112 delegates. Work on the proposed standard continued into the summer of 1992 when the International [*48] Telecommunications Union joined the ISO effort and collaboration on MPEG-2 began in earnest. As the proposed MPEG-2 standard began to take on added significance for a broader range of applications, additional industries -- such as cable television -- joined the meetings.

The first video MPEG-2 working draft was proposed by an ad hoc group at the November 1992 MPEG meeting. Test models were produced, and substantial progress toward defining the proposed standard was reached in April 1993 in Australia. Subsequent meetings in New York, Brussels and Seoul resulted in completion of a working draft of the MPEG-2 standard toward the end of 1993. An international ballot was then held over the next three months, and resulted in Draft International Standard 13818.

Ultimately, on November 11, 1994, the ISO Moving Picture Expert Group finalized the MPEG-2 recommendations. On January 27, 1995, the International Telecommunications Union-Telecommunications Sector approved a series of specifications which incorporate MPEG-2.

Prior to adoption of the Draft Standard, various participants in the process recognized the likelihood that numerous patents held by various entities would read on the MPEG-2 [*49] standard. Some MPEG participants in early 1993 began to consider how to prevent intellectual property from effectively blocking the implementation of the eventual MPEG-2 standard, and later turned to consider methods by which essential patents would be made available in an efficient manner and on reasonable and non-discriminatory terms.

That effort proceeded, and in July of 1993, MPEG recommended that steps be taken to explore methods by which most or all essential MPEG-2 patents would be offered in a single license. To further this goal,

⁴ The MPEG-3 project was discontinued when it became evident that MPEG-2 would meet the needs MPEG-3 attempted to address.

CableLabs offered to convene a series of open meetings to discuss the intellectual property which was implemented by MPEG-2.⁵ Baryn Futa, an executive of CableLabs, agreed to organize the meetings of what was later known as the MPEG-2 Intellectual Property Rights Working Group ("IP Working Group").

[*50]

A well-publicized meeting of the IP Working Group was convened on September 11, 1993. This meeting was attended by representatives of approximately 40 to 50 entities. Although membership in the group fluctuated, its members included CableLabs, General Instrument, Matsushita, Philips, Scientific-Atlanta, Sony, Thomson Consumer Electronics and 3DO. The September 11 meeting resulted in a consensus on several issues: (1) that licenses for patents owned by several entities would be required by those wishing to produce or sell an MPEG-2 product; (2) that the group should continue to discuss ways of making patent licenses available in an efficient manner and on fair, reasonable and non-discriminatory terms; (3) that Mr. Futa should chair subsequent meetings; and (4) that a patent search originally began on behalf of CableLabs headed by Dr. Kenneth Rubenstein, Esq., should continue.⁶

At the November 1993 MPEG meeting, Mr. Futa proposed [*51] to the wide audience in attendance that essential patent holders form a licensing entity which would be given the authority by essential patent holders to sublicense their respective patents on non-discriminatory and fair and reasonable terms and conditions. Dr. Rubenstein also reported at length on the patent search effort being funded by CableLabs.

The effort to identify essential patents continued. Under Dr. Rubenstein's direction, and with the assistance of Cliff Reader, Ph.D, then an independent engineering consultant, approximately 8,000 United States patent abstracts were reviewed and 800 patents issued to more than 100 assignees were studied. The well-publicized effort invited any patent holder who so desired to submit its patent for review. No submission was refused, and no entity or person who was identified as having an essential patent was in any way excluded from the effort in forming the proposed joint licensing program. Based on Dr. Rubenstein's analysis, the essential patent holders believe that the proposed licensing arrangement includes most, but not all, MPEG-2 essential patents.

Ultimately, the IP Working Group identified those entities believed to hold essential [*52] patents and, under Mr. Futa's leadership, the Group suggested in March 1995 that a licensing entity be formed to provide efficient access to intellectual property rights necessary to implement MPEG-2 technology. The Group also outlined a tentative royalty model, and invited all essential patent holders to participate. The licensing entity -- MPEG LA -- was formed as a Delaware limited liability company in May of 1996, and

⁵ CableLabs is a research and development organization whose members consist of cable television system operators. It was organized as a non-stock membership corporation under Delaware law on May 11, 1988. CableLabs is qualified as a § 501(c) (6) organization under the Internal Revenue Code, and was registered in 1988 under the National Cooperative Research Act of 1984. The purpose of CableLabs is to gather, assess and disseminate technological information that is significant to the cable television industry, to develop new technologies for the benefit of the industry, and to transfer such new technologies to the industry through a variety of means. The Board of CableLabs is comprised of representatives of various entities in the United States and Canada with interests in cable television. CableLabs' members include more than 60 companies serving more than 85% of cable subscribers in the United States, 75% of the subscribers in Canada and 5-10% of the subscribers in Mexico.

⁶ Kenneth Rubenstein, a member of Meltzer, Lippe, Goldstein, Wolf & Schlissel, P.C. of New York, received his Ph.D in plasma physics from the Massachusetts Institute of Technology in 1979 and his J.D. *cum laude* from New York Law School in 1982.

a series of agreements, described *infra* and made exhibits hereto, were drafted to specify the terms of the proposed licensing program.

It is hard to imagine the adoption of an international standard and the identification of essential patents which it implicates in a more open and inclusive procedure. The MPEG-2 standard was adopted prior to identifying those entities with essential patents, and the standard reflects choices based on providing the best and most cost effective technological solutions for the various industries impacted by the standard. Essential patents were identified by independent experts unrelated to any patent holders. In addition, the essential patent holders have signed and submitted to the ISO Information Technology Task Force an undertaking [*53] which requires that they license their patents under fair, reasonable and non-discriminatory terms.⁷

IV. The Terms of the Proposed Licensing Program

The proposed Licensing program is defined by five agreements: the MPEG-2 Patent Portfolio License (Exhibit D hereto); the License from Licensor to Licensing Administrator (Exhibit E hereto); the Licensing Administrator Agreement (Exhibit F hereto); the Agreement Among Licensors (Exhibit G hereto), and the Amended and Restated Limited Liability Company Agreement of MPEG LA, LLC (Exhibit H hereto). The Agreements and certain provisions thereof are described briefly below.

A. The MPEG-2 Patent Portfolio License

The MPEG-2 Patent Portfolio License ("Portfolio License") provides the terms under which a minimum of 27 essential patents and their foreign counterparts held by nine entities will be licensed to all interested parties. Initially, the Portfolio License recites that each licensor has signed an ISO undertaking, and that each licensor is willing to license its patents on fair, reasonable and non-discriminatory terms outside of the Portfolio License [*54] (at 2).

Licensees pay royalties only upon the sale of products that would infringe one or more of the licensed patents but for the license (Article 3). Royalty rates differ based on the nature of the product sold, its use of the MPEG-2 standard, and the economic value of the product. Sellers of consumer products such as TV set top boxes, computers and the like which incorporate an MPEG-2 encoder or decoder pay a royalty rate of \$ 4.00 per product (Art. 2.2, 2.3, 3.1.1, 3.1.2). Consumer products which incorporate both an encoder and decoder such as a camcorder are licensed for a total royalty of \$ 6.00 (Art. 3.1.4).

The royalty for packaged media such as DVD or other optical disks or magnetic tapes depend on whether the product is sold for consumer use (\$.04 per disk or medium per "MPEG-2 Video Event") or commercial use (\$.40 per disk or medium per "MPEG-2 Video Event"). Thus, for example, the royalty due on a DVD disk sold to consumers employing an essential MPEG-2 patent and containing a single full length motion picture (which qualifies as a single "MPEG-2 Video Event") is \$.04.

The rationale between the different rates for packaged media is that greater economic value [*55] is derived from commercial than from consumer use. A commercial product is likely to be played more frequently and thereby employ the licensed patent more often than a consumer product. The royalty rate structure also reflects that a seller of a consumer medium has a single sale opportunity in which to recover

⁷ An example of an ISO undertaking is attached hereto as Exhibit C.

the royalty while the renter of the commercial medium is likely to have many transactions in which to recover royalties paid.

Finally, royalty rates for "Distribution Encoding Products" -- generally those used in real time broadcasts and cable transmissions -- are \$ 4.00 per device per channel which is incorporated in the device. (Art. 2.5, 3.1.3). Royalty rates for "Transport or Program Stream Products" such as multiplexers are \$ 4.00 times the greater number of inputs or outputs.

Thus, for example, the royalty due from a film studio on a DVD disc sold to consumers incorporating a single "MPEG-2 Video Event" would be \$.04, or .16% of the retail price, assuming a price of \$ 25.00. If the disc incorporates a patent of each essential patent holder where the disc is manufactured or sold, the gross pro rata royalty for each essential patent holder would be \$.0044, not considering [*56] any applicable taxes and licensing costs. The royalty due from a camcorder manufacturer which incorporates both an encoder and decoder would be \$ 6, or .15% of the retail price, assuming a price of \$ 400. If the camcorder incorporates a patent of each essential patent holder where the unit is manufactured or sold, the gross pro rata royalty for each essential patent holder would be \$.67, not including any applicable taxes and licensing costs.

The Portfolio License, as do many patent licenses, provides the Licensing Administrator with the right to audit books and records of the licensee to determine whether appropriate royalties are being paid (Art. 3.9). The Portfolio License insures that potentially sensitive competitive information is not disclosed to essential patent holders by permitting the audit to be conducted only by certified public accountants who are prohibited from disclosing any information other than the appropriate royalties due (Art. 3.9.2.1).

The Portfolio License expires in 2000, but each licensee is given the option to renew the license for an additional period of five years (Art. 6.1). Licensees are assured that royalties will increase, if at all, by no more [*57] than 25% for the five year renewal period.

Article 6.3 of the Portfolio License gives each licensor-essential patent holder the right to withdraw its own patent (s) from the Portfolio License with respect to any licensee which (1) refuses to grant a license on fair and reasonable terms and conditions to the patent holder-licensor for a patent which is essential to or may be used to exploit the MPEG-2 standard and (2) brings a lawsuit against the patent holder-licensor alleging infringement of such a patent. This provision of the Portfolio License states an assumption that the Portfolio License royalty rate is fair and reasonable.

This provision is critical to prevent Portfolio licensees from taking unreasonable and unfair advantage of the fact that each Portfolio licensor already has agreed to license its patents on open, non-discriminatory terms at what would likely be a fraction of the royalties that would be payable if patents were licensed individually outside the Portfolio License. Without this provision, a Portfolio licensee could -- while enjoying the considerable benefits of the Portfolio License -- attempt to extract unreasonable terms for licensing its patent as a result [*58] of already being licensed under the Portfolio. Article 6.3 merely "evens the playing field", puts the parties back into the bargaining position each would have been in but for the Portfolio License, and creates no competition issues. The individual licensor's patents are only withdrawn from the Portfolio License when and if the licensee refuses to grant a license to the Portfolio licensor on fair and reasonable terms. Moreover, the ISO undertaking signed by each essential patent holder-licensor insures that the licensee will be able to obtain a license under the essential patent at

issue, just not necessarily on the terms offered in the Portfolio License. Any potential licensee which objects to this provision remains free to negotiate individual licenses from essential patent holders.

Article 6.4 of the Portfolio License permits any licensee to terminate the license for any reason on thirty days notice and, as noted above, royalties are payable under the license only if the licensee would infringe an essential licensed patent but for the License (Art. 3).

The Portfolio License requires licensees to grant licensors and other Portfolio licensees a license under any essential MPEG-2 [*59] patent (s) it has the right to license or sublicense, but specifies that this "grant back" only requires that a license be offered by the licensee on fair and reasonable terms and conditions. Thus, the scope of licensee's obligation is no greater than the scope of the Portfolio License, the license which is "granted-back" is non-exclusive, and there is no disincentive to innovate because the licensee's obligation to license is on terms and conditions which include a reasonable royalty such as that payable under the Portfolio License (Art. 7.3).

If a licensee prefers not to license its essential patent (s) on its own but to have them licensed by MPEG LA with all other essential patents in the Portfolio License, the licensee has the right to join the proposed licensing program on the same terms and conditions as the original licensors (Art. 7.4). The licensee which decides to join the Portfolio License is assured of having its patent (s) evaluated by the same process under which the original licensors' essential patents were evaluated.

Various provisions of the Portfolio License insure that only essential patents are included in the License. Patents originally included in the License [*60] which later are determined not to be essential are deleted from the License (Art. 7.6.2). In order to protect licensees, however, licensees are given the option of including the non-essential patent in the license for the term thereof (Art. 7.6.3). Alternatively, licensees are free to negotiate with individual patent holders for a license on the non-essential patents outside the Portfolio License.

Article 7.7 of the Portfolio License assures each licensee that it will receive royalty rates as favorable as any other licensee of the Portfolio License. Certain limitations are set out in Article 7.7.1, such as the settlement of litigation or the unauthorized issuance of portfolio licenses.

The Portfolio License specifically provides that the License does not in any way prohibit or restrict licensees from developing competitive products which do not comply with MPEG-2 (Art. 7.8).

B. License from Licensors to Licensing Administrator

Each essential patent holder also grants a license to MPEG LA, the licensing administrator, in the License from Licensors to Licensing Administrator. This License facilitates the ability of MPEG LA to grant sublicenses under the Portfolio License, and [*61] sets forth many of the terms discussed above which are included in the Portfolio License.

Although technically having the right to do so as a result of the License, it is not anticipated that MPEG LA will produce or sell any MPEG-2 products. Indeed, the Licensing Administrator Agreement, discussed *infra*, would require MPEG LA to resign as the licensing administrator before selling or producing MPEG-2 products (*id.* at Art. 11.3(c)), and the Amended and Restated Limited Liability Company Agreement of MPEG LA, L.L.C., discussed *infra*, also would prevent MPEG LA from

producing and selling MPEG-2 products unless such activities were authorized by the patent holders (*id.* at Art. 7.03(d)).

C. Licensing Administrator Agreement

The Licensing Administrator Agreement ("Agreement") provides the basic terms under which MPEG LA is retained by the patent holders to license essential patents through the Portfolio License. The Agreement reflects that essential patent holders have granted MPEG LA the non-exclusive right to sublicense all their essential patents, that each essential patent holder retains the right to license its patents outside the Portfolio License, and that essential [*62] patent holders and MPEG LA have discussed matters necessary to the proposed licensing program, but have not discussed any matters such as marketing or selling MPEG-2 products or potential terms and conditions under which each essential patent holder might individually license its patents (at 2).

Article III of the Agreement sets forth the basic duties of MPEG LA to identify potential licensees and to grant sublicenses to interested parties in the form of the Portfolio License. While MPEG LA is instructed not to "discriminate against potential licensees" (Art. 3.2(b)), MPEG LA is given the right to make independent decisions about the creditworthiness of licensees and to require additional security for royalty payments from those licensees deemed to be a credit risk.

Article 3.4 of the Agreement reflects that MPEG LA has no authority to institute any claim for infringement of any patent licensed in the Portfolio License. MPEG LA may, however, institute enforcement actions against Licensees who fail to abide by the terms of the Portfolio License (Art. 3.14).

The Agreement reflects that an Administrative Committee of licensors will be established pursuant to the Agreement Among Licensors [*63] discussed *infra*. The Administrative Committee has certain limited rights to supervise the activities of MPEG LA or its successor, such as reviewing a business plan (3.11), vetoing MPEG LA's decision to terminate a licensee (Art. 3.14) conducting periodic meetings (Art. 5.1), and replacing MPEG LA as the licensing administrator (Article X).

The Agreement also sets forth the compensation of MPEG LA (Article VI) and provides for the distribution of royalties to licensors (*id.*). Licensors are given the right to withdraw from the proposed licensing arrangement, but the patents of any withdrawing licensor continue to be licensed under any license entered into by MPEG LA prior to the withdrawal (Art. 11.2).

D. Agreement Among Licensors

Like other documents, the Agreement Among Licensors recites that each licensor has one or more essential patents, that each retains the right to license these patents outside the Portfolio License "under terms and conditions agreeable to the [licensor] and its licensee" (Art. 2.7) that each patent holder has signed an ISO undertaking to license their patent (s) on fair and reasonable and non-discriminatory terms, and that the licensors have not [*64] discussed matters relating to the marketing or selling of MPEG-2 products (at 2).

The Agreement establishes an Administrative Committee (Article 3) consisting of a representative of each licensor. The Administrative Committee has responsibility for selecting the Licensing Administrator, and reviewing certain activities of the Licensing Administrator. The Licensing Administrator, however, and

not the Administrative Committee or individual licensors, has exclusive responsibility to identify and solicit potential portfolio licensees, audit sublicensees, determine back royalties which potential licensees may owe, bring actions to enforce a Portfolio License and other licensing administration matters (Article 3.5.4).

The Agreement Among Licensors also provides the formula for apportioning royalty income among licensors (Article 5.1) as well as a basis for dividing any joint expenses or liability which may arise (Article 5.2, 5.3). The licensors agree to reimburse certain of the expenses which were incurred by CableLabs in connection with the patent search and other efforts to organize the proposed licensing program (Art. 5.3.2).

The Agreement also provides the procedures for removing [*65] existing or adding new essential patents to the Portfolio License -- whether such new patents are held by the original licensors or other entities - - and provides that any new licensor will reimburse the original licensors \$ 25,000 for certain start-up expenses which the original licensors incurred (Articles 2, 6).

E. Amended and Restated Limited Liability Company Agreement of MPEG LA, L.L.C.

MPEG LA was established as a Delaware limited liability company as of May 31, 1996. It subsequently existed pursuant to a Limited Liability Company Agreement initially executed by three members. MPEG LA has yet to engage in any licensing activities. All current members of MPEG LA have agreed to enter into the Amended and Restated Limited Liability Company Agreement of MPEG LA, L.L.C. ("Company Agreement") (Exhibit H hereto) which sets forth the basic terms of ownership in MPEG LA and its powers and purposes.

Most significantly, the Company Agreement provides for three classes of ownership (denominated A, B and C) -- each with considerably different voting rights -- to reflect the appropriate role of the Licensing Administrator, the patent holder-owners and the non-patent holder-owners. [*66] ⁸ Class A interests of MPEG LA will be held exclusively by MPEG-2 essential patent holders who have granted MPEG LA a non-exclusive right to license their patents in the Portfolio License (Art. 7.01(a) (v)). Class A interests are non-voting except that patent holder-owners are entitled to vote on the requirement of additional capital contributions or advances to MPEG LA, and certain major decisions regarding MPEG LA financial matters, changes in business, dissolution and other matters referred to in Article 7.02 (Art. 7.01(a) (i)). There is no right provided in the Company Agreement for any patent holder to make any decision on day-to-day licensing issues which may arise in the course of licensing the Portfolio License.

Class B interests have been issued to Baryn S. Futa as consideration for his agreement to act as MPEG LA manager and to allow Futa to attract and reward competent staff by providing to them limited ownership interest in MPEG LA. ⁹ Class B interests [*67] are voting interests as long as Futa remains manager of MPEG LA. Once Futa's duties as manager of the Licensing Administrator cease, Futa's interest in MPEG LA becomes essentially non-voting (Art. 7.02(j)).

⁸ Current essential patent holders who are members of MPEG LA (either by themselves or through related entities) are Columbia, Fujitsu, General Instrument, Matsushita, Mitsubishi, Philips, Scientific-Atlanta and Sony.

⁹ Prior to serving as manager of MPEG LA beginning in May of 1996, Baryn S. Futa was executive vice president and chief operating officer of CableLabs. He received his B.A. *cum laude* in government from the University of San Francisco in 1976 and his J.D. from the University of California, Hastings College of Law, in 1979.

In recognition of the substantial role played by CableLabs in organizing the proposed licensing program CableLabs -- which along with Sony provided the original capital in return for its membership interest in MPEG LA -- initially will be issued the only Class C interests in MPEG LA. CableLabs' interest is non-voting except as to a disproportionate redemption of Class C interests or a change in the economic characteristic of Class C interests as compared with Class A interests (Art. 7.01(a) (i)). Class C interests also have limited votes in matters affecting tax elections or accounting policies. The intent and effect of the Company Agreement is to [*68] give Class C interests the same economic value as that represented in Class A interests while insuring that Class C interests shall have no voice whatsoever in licensing matters.

Voting rights of each respective class may change if interests are sold or transferred to another entity having different characteristics with regard to the proposed licensing program. For example, if CableLabs acquires Class A interests from a patent-licensor, then the acquired Class A interests become Class C interests with the attendant limited voting rights (Art. 7.01(a) (iv)). Similarly, the Class A interests of a patent holder who withdraws from the proposed licensing program automatically convert to Class C interests (Art. 9.04(b)). Each member, with the exception of Futa, has made a capital contribution for its respective ownership interest to MPEG LA which, after certain oversubscription amounts are refunded, will amount to \$ 333,333.

Any "profit" earned by MPEG LA is distributed to the members based on the formula set forth in Article 6.02(d). The compensation paid to MPEG LA by the patent holders is determined under Article VI of the Licensing Administrator Agreement. That amount, less expenses [*69] and cash needed to conduct business, may be available for distribution to owners of MPEG LA under the formula provided in the Company Agreement.

V. Conclusion

MPEG-2 technology is expected to have widespread application in several next generation products which will be significant to American consumers and various American industries. The ability to compress digital information, encode it, transmit it or store it, and decode it will be essential to the ability to compete in various global markets.

Intellectual property rights granted by the United States and other nations to numerous unrelated entities threatened to create a serious damper on the introduction of this essential technology. The proposed licensing program described above, however, will all but eliminate this potential bottleneck, and will provide for an efficient and cost effective means by which virtually all patents essential to the MPEG-2 standard can be licensed in a single license. The proposed licensing program has been carefully crafted in an effort to avoid any competition concerns which may arise from the joining of the patents belonging to various entities in a single license, the terms under which [*70] those patents are licensed, the distribution of royalties, and the ownership of the licensing administrator. We respectfully submit that the proposed licensing program has successfully addressed any competition concerns, and that the procompetitive aspects of the program far outweigh any potential competition issues which may remain.

We will be available at your convenience to provide any further information you may require. We very much appreciate the Division's attention to this matter.

Respectfully,

Garrard R. Beeney

1997 DOJBRL LEXIS 14, *70

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Department of Justice Business Review

Letters

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Exhibit 3

2008 DOJBRL LEXIS 5

William F. Dolan and Geoffrey Oliver, Jones Day

Department of Justice - Antitrust Division

October 21, 2008

Department of Justice Business Review

Letters

Reporter

2008 DOJBRL LEXIS 5 *

Subject: Business Review Letter

October 21, 2008

Core Terms

patent, license, consortium, pool, licensee, portfolio, licensor, has, technology, royalty, royalty rate, manufacture, label, usdoj, http, www, antitrust, grantback, cost, atr, patent-licensing, safeguards, frequency, negotiate, infringe, entity, nonexclusive right, transaction costs, term sheet, anticompetitive

Opinion

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Dear Messrs. Dolan and Oliver:

This letter responds to your request, on behalf of your client, the RFID Consortium LLC (Consortium), for a business review letter from the Department of Justice pursuant to our Business Review Procedure, 28 C.F.R. § 50.6. You have requested a statement of the Department's current antitrust enforcement intentions with regard to the Consortium's proposed joint patent-licensing arrangement, pursuant to which the Consortium will license its members' patents that are "essential" to manufacture products in

compliance with certain ultra high frequency radio frequency identification (UHF RFID) standards, and distribute royalty income among these members, the licensors.

I. The UHF RFID Standards and System

UHF RFID is a type of automatic identification and data capture technology, which can be used to identify objects automatically by using radio frequency waves to transmit and read information stored in an integrated circuit (or [*2] chip) on a label.

EPCglobal, Inc., a private standard-setting organization, issued a next-generation UHF RFID standard, known as the Generation-2 standard, in 2004.¹ In July 2006, the International Organization for Standardization adopted EPCglobal's Generation-2 standard as ISO/IEC 18000-Part 6c giving it broad acceptance as the governing protocol of UHF RFID products.² These standards are collectively referred to in this letter as the "Gen-2 standard."

The Gen-2 standard describes the physical and logical requirements for a system of readers (also known as interrogators) and labels (also known as tags). A UHF RFID reader transmits information in the radio frequency bandwidth 860 MHz-960 MHz through an antenna to an RFID [*3] label. Labels conforming to the UHF RFID standard generally contain an integrated circuit which stores information about the item to which the label is attached, such as the item's Electronic Product Code. A label also contains an antenna to communicate with UHF RFID readers.³ UHF RFID labels are classified as "passive," meaning that they do not have their own internal power source, but are powered by energy received from the signal transmitted by the UHF RFID reader.⁴ Once information is transmitted from the label to the reader, the reader can then re-direct that information to a computer for processing and management.

UHF RFID systems have broad applicability. They are used in retail supply-chain management; ID cards; returnable container tracking; aviation baggage tracking; medical equipment and specimen tracking; and other high-value asset tracking. Industry participants stated that, although UHF RFID is still in a nascent [*4] stage of commercialization, they are optimistic that the technology will enjoy widespread commercial use in the long term. UHF RFID systems currently compete with each other and with other identification technologies, such as low and high frequency RFID, bar coding, and manual identification.

Compliance with the Gen-2 standard could infringe a number of patents owned by various entities. Accordingly, a group of seven firms formed the Consortium to facilitate access to patent rights essential to manufacture products compliant with the standard.⁵ Each member firm holds a patent (or patents) that an independent patent evaluator has determined to be essential to the standard--currently ten patents

¹ EPC Radio-Frequency Identity Protocols Class-1 Generation-2 UHF RFID Protocol for Communications at 860 MHz-960 MHz version 1.1.0 (EPCglobal Dec. 17, 2005), *available at* http://www.epcglobalinc.org/standards/uhfclg2/uhfclg2_1_1_0-standard-20071017.pdf [hereinafter Gen-2 Standard].

² Information Technology --Radio Frequency Identification for Item Management pt. 6 amend. 1 (Int'l Org. for Standardization & Int'l Electrotechnical Comm'n 2006).

³ See Letter from William F. Dolan & Geoffrey Oliver to Thomas O. Barnett, Assistant Attorney Gen., U.S. Dep't of Justice 3-4 (Nov. 26, 2007) [hereinafter Business Review Request Letter].

⁴ See Gen-2 Standard, *supra* note 1, at 9.

⁵ The current members of the Consortium are France Telecom, Hewlett-Packard Company, LG Electronics, Motorola, Inc., ThingMagic, Inc., Zebra Technologies Corporation, and 3M Innovative Properties Company.

in total--and each has granted the Consortium a nonexclusive right to license its patent (s). The Consortium, in turn, plans to license its portfolio of patents on reasonable and nondiscriminatory (RAND) terms to all interested parties for use in manufacturing products compliant with the standard.⁶

[*5]

In addition to essential patents held by Consortium members, other essential patents are held by various entities outside the Consortium, although there is no clear consensus among industry participants as to how many other patents exist.

II. The Proposed Arrangement

The structure of the proposed patent-licensing arrangement is embodied in four agreements: (A) a Limited Liability Company Agreement (LLC Agreement), creating the Consortium; (B) a Participant Agreement, under which entities holding essential UHF RFID patents grant nonexclusive rights to the Consortium to license such patents; (C) the Patent Portfolio License, a nonexclusive license of rights to a set of essential UHF RFID patents; and (D) the License Administrator Term Sheet, a proposed agreement between the Consortium and an independent patent-licensing expert to administer the Consortium's licensing activities.

A. The Limited Liability Company Agreement

The LLC Agreement joins in the Consortium a group of entities [*6] holding one or more essential UHF RFID patents. The Consortium was organized to manage the UHF RFID patent-licensing arrangement and to engage and oversee the activities of an independent license administrator. Each licensor-participant in the UHF RFID patent-licensing arrangement is expected to sign the LLC Agreement and become a member of the Consortium.⁷

Under the LLC Agreement, the Consortium is to be directed by an administrative committee consisting of Consortium members' employees, as selected by Consortium members.⁸ The general membership retains the right to vote on certain major matters, such as any exchange or transfer of any significant portion of the Consortium's assets, commencement of litigation, adoption of an annual operating budget, admission of new members, calls for additional capital contributions, and material changes to the Participant Agreement or Portfolio Patent License.⁹

The LLC Agreement generally prohibits Consortium members and their [*7] affiliates from disclosing confidential information provided by the Consortium or another Consortium member. In addition, the Consortium generally shall not disclose or use any confidential information provided by members or their affiliates, with the exception of providing such information to the license administrator.¹⁰

⁶ See Letter from William F. Dolan, Partner, Jones Day, to Frances Marshall, Special Counsel for Intellectual Prop., U.S. Dep't of Justice 5 (Apr. 16, 2008) [hereinafter Dolan 4/16/08 Letter].

⁷ See Business Review Request Letter, *supra* note 3, at 8.

⁸ RFID Consortium LLC, Limited Liability Company Agreement §§ 5.01-6.02 (2007) [hereinafter LLC Agreement].

⁹ *Id.* § 6.14.

¹⁰ *Id.* § 14.07.

B. The Participant Agreement

In order to participate in the Consortium and the patent-licensing arrangement, an entity must hold at least one essential patent as determined by an independent patent evaluator¹¹ and must enter into a Participant Agreement with the Consortium.¹² A patent deemed essential under this agreement is one which either is "necessarily infringed or as to which a license is necessary as a practical matter because there are no economically viable substitutes to [m]ake, use or sell" RFID products in compliance with the Gen-2 standard.¹³ Only patents deemed essential will be included in the pool. The Consortium or other parties, including other Licensors, may challenge the essentiality determination for any patent the independent patent evaluator deems essential but must pay for the cost of the re-evaluation. [*8]¹⁴ For purposes of evaluation, issued patents "shall be considered valid and enforceable unless and until" there is final adjudication of invalidity by a "tribunal of competent jurisdiction from which no appeal is taken or allowed,"¹⁵ at which point that patent shall be removed from the portfolio.¹⁶

By entering into the Participant Agreement, holders of essential patents agree to grant a nonexclusive right to the Consortium to license such patents to any interested party. Participants retain the right independently to grant nonexclusive licenses to such patents under terms separately negotiated.¹⁷

[*9]

The Participant Agreement sets out a formula for allocating royalties to the participants: half of the royalties are allocated to participants based on the number of patents contributed by each participant, and the other half are allocated substantially equally among participants.¹⁸

Like the LLC Agreement, the Participant Agreement generally prohibits participants from disclosing any confidential information provided by the Consortium and, likewise, the Consortium from disclosing the confidential information of participants, except, as necessary, to the license administrator.¹⁹

C. Patent Portfolio License

¹¹ See RFID Consortium LLC, Participant Agreement § 1.1 (n.d.) [hereinafter Participant Agreement]; *id.* § 5.3. After its initial patent submission to the independent patent evaluator a participant must submit for evaluation any additional patents the participant or the Consortium concludes in good faith to be essential. *Id.* § 3.2(a).

¹² LLC Agreement, *supra* note 8, § 2.08.

¹³ Participant Agreement, *supra* note 11, § 1.1; *see id.* §§ 3.1-3.2.

¹⁴ *Id.* § 3.4.

¹⁵ *Id.* § 3.8.

¹⁶ *Id.* § 3.10(d).

¹⁷ *Id.* §§ 2.1-2.2.

¹⁸ *See id.* § 4.2, exhibit B.

¹⁹ *Id.* § 9.1.

The Patent Portfolio License grants to the licensee a "worldwide, royalty-bearing, nonexclusive" license to all of the participants' essential UHF RFID patents to make (or, under certain circumstances, have made), use, or sell licensed products on what appear to be RAND terms.²⁰

[*10]

The Patent Portfolio License contains separate royalty rates for different types of UHF RFID devices. These rates are based on the number of product units produced.²¹ The License includes a "most favored nation" clause, which requires the Consortium to notify the licensee should the Consortium subsequently grant a license at a more favorable royalty rate. Upon such notification, the licensee is entitled to an amendment of its license terms to the new, lower rate, provided, however, that the license also be amended to include any additional terms or conditions. The lower rate will not retroactively be applicable in favor of the licensee.²²

Licensees agree to grant back to the Consortium the nonexclusive right to grant licenses to their essential UHF RFID patents on fair, reasonable, and nondiscriminatory terms. The Patent Portfolio License can be withdrawn if a licensee does not comply with this obligation.

Licensees are obligated to submit on a quarterly basis a report setting forth the quantities and description of any licensed products they manufactured, acquired, or sold, [*11] as well as a computation of royalties due for such products.²³ The license administrator shall maintain and make publicly available a list of entities licensed by the Consortium to make, use, or sell UHF RFID products.²⁴

The initial term of the Patent Portfolio License is five years. Licensees may terminate the license at the end of any quarter and, during the term of the license, are free to manufacture products based on competing technologies and pay royalties only on those products conforming to the UHF RFID standard.²⁵ At the expiration of the initial term, licensees have the right to renew the license for successive five-year periods for as long as any portfolio patent remains in force, subject to reasonable amendment of its terms and royalty rates. However, the royalty rates upon renewal shall not increase by more than twenty-five [*12] percent of the rates paid immediately before renewal.²⁶

D. License Administrator Term Sheet

²⁰ RFID Consortium, LLC, Patent Portfolio License §§ 2.1-2.2 (n.d.) [hereinafter Patent Portfolio License] ; *see id.* § 3.5 (most favorable royalty rate clause to ensure reasonableness of the royalty rate) ; Participant Agreement, *supra* note 11, § 2.1 (availability of nonexclusive license to any interested party to ensure nondiscrimination).

²¹ *See* Patent Portfolio License, *supra* note 20, at exhibit C.

²² *Id.* § 3.5(a).

²³ *Id.* § 3.6. It is our understanding that licensees will provide this information to an independent license administrator. Consortium members will only have access to it in aggregate form as presented in the administrator's reports. *See* discussion *infra* at 10.

²⁴ Patent Portfolio License, *supra* note 20, § 2.7.

²⁵ *See id.* §§ 3.1-3.2, 6.4.

²⁶ *Id.* §§ 6.1, 6.2, 6.3.

The Consortium has stated its intention to enter into an agreement with an independent license administrator to oversee the day-to-day operation of the licensing arrangement. The Consortium has provided what it anticipates will be the terms of that agreement, in the form of a nonbinding term sheet, although as of this writing it has yet to enter formally into that agreement.

According to the term sheet, the administrator's duties will include identifying and soliciting patents for essentiality evaluation, administering and marketing the patent portfolio license on behalf of the Consortium, collecting royalty payments from licensees, distributing royalties and providing royalty reports, and providing to the Consortium aggregate information from the royalty reporting system.²⁷

III. Analysis

Patent pools have the potential to generate significant efficiencies, but also may engender anticompetitive [*13] effects. Accordingly, the Department analyzes patent pools under the rule of reason, unless a pool is a sham intended to cloak collusion. In applying the rule of reason, the Department examines both the pool's expected competitive benefits and its potential to restrain competition.²⁸

[*14]

A. Efficiencies

The Consortium's pool appears reasonably likely to yield some tangible cost savings by limiting the threat of hold up and royalty stacking and by lowering transaction costs.

Overall Royalty Rates May Be Lowered by Limiting the Threat of Hold Up and Royalty Stacking. Presently, each of the seven members of the Consortium has the right to assert its patents and, potentially, halt the sale of UHF RFID products conforming to the Gen-2 standard. They might, in the absence of the pool, practice "hold up" or "hold out."²⁹ The Consortium would limit the ability of its members to engage in such conduct, making their patents available on RAND terms. In this way, the Consortium could reduce the royalty rates borne by manufacturers of UHF RFID products.³⁰

²⁷ See RFID Consortium, LLC, License Administrator Term Sheet PP 2.0-2.2, 6.0-6.2, 6.4, 6.6, 6.7 (n.d.).

²⁸ This letter applies the framework for analyzing patent pools developed by the Department in recent commentary and business review letters. See U.S. Dep't of Justice & Fed. Trade Comm'n, Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition 65-85 (2007), available at <http://www.usdoj.gov/atr/public/hearings/ip/222655.pdf> [hereinafter IP2 Report]; U.S. Dep't of Justice & Fed. Trade Comm'n, Antitrust Guidelines for the Licensing of Intellectual Property § 5.5 (1995), available at <http://www.usdoj.gov/atr/public/guidelines/0558.pdf> [hereinafter Antitrust-IP Guidelines]; Letter from Joel I. Klein, Assistant Attorney Gen., U.S. Dep't of Justice, to Carey R. Ramos, Esq. (June 10, 1999), available at <http://www.usdoj.gov/atr/public/busreview/2485.pdf> [hereinafter 6C DVD Business Review Letter]; Letter from Joel I. Klein, Assistant Attorney Gen., U.S. Dep't of Justice, to Garrard R. Beeney, Esq. (Dec. 16, 1998), available at <http://www.usdoj.gov/atr/public/busreview/2121.pdf> [hereinafter 3C DVD Business Review Letter]; Letter from Joel I. Klein, Acting Assistant Attorney Gen., U.S. Dep't of Justice, to G[a]rrard R. Beeney, Esq. (June 26, 1997), available at <http://www.usdoj.gov/atr/public/busreview/215742.pdf> [hereinafter MPEG-2 Business Review Letter].

²⁹ Hold up occurs when a firm holding a patent asserts its intellectual property rights only after another firm has made investments related to that patent (for example, after that firm has brought to market an infringing product) and thereby bargains for higher rents. Hold out occurs when a patent holder strategically delays negotiation so as to garner the greatest surplus by becoming the last licensor. See IP2 Report, *supra* note 28, at 64-65.

³⁰ See *id.* In addition, some economic models suggest that a patent pool's overall royalty rate can be less than it would be if customers individually negotiated licenses with licensors. See Josh Lerner & Jean Tirole, *Efficient Patent Pools*, 94 Am. Econ. Rev. 691 (2004). The Consortium's pool may also reduce the royalty rate in this way.

[*15]

Not all owners of potentially blocking patents are currently members of the Consortium--and these owners may never join it--potentially limiting efficiency gains. Failure to realize all potential efficiencies does not mean, however, that the efficiencies created are noncognizable.³¹

Lowering Transaction Costs. The pool likely will reduce transaction costs for both licensors and licensees. Its efforts to identify patents essential to the practice of the Gen-2 standard and to disseminate this information offers savings in search costs to licensees. Moreover, licensees could shop at a single stop for the patents of Consortium members, rather than negotiating individually with seven separate parties for licenses (as of October 2008). [*16]³² Licensees, though, would incur additional transaction costs to license patents from non-members.

Similarly, the pool likely will reduce costs for licensors. Members would no longer face the expensive and time-consuming tasks of searching out manufacturers who are using those members' intellectual property, or negotiating individual licenses. Instead, they would reap the cost savings of centralized licensing and would realize an immediate return on their intellectual property. In addition, if UHF RFID patent licensing increases as a result of the pool license, infringement litigation (and the potential for infringement litigation) will decrease.

In sum, it appears the Consortium's proposed pool will yield cognizable efficiencies, although those efficiencies may not be as great as they would be if the pool contained all essential patents.

B. Potential Anticompetitive Effects [*17] and Related Safeguards

The Department has identified numerous safeguards that patent pools can implement to reduce the risk of competitive harm.³³ The Consortium's proposal includes many of these safeguards, and, taken together, they reduce concerns about potential harm to competition.³⁴

Invalid Patents. "A licensing scheme premised on invalid or expired intellectual property rights will not withstand antitrust scrutiny."³⁵ But patents are presumed valid,³⁶ and none of the information we have gathered regarding the Consortium's proposed patent pool warrants abandonment [*18] of that presumption in this case. As with prior pools reviewed by the Department, the Consortium does not evaluate the validity of patents in this proposed pool, but patents finally adjudicated as invalid or

³¹ 3C DVD Business Review Letter, *supra* note 28, at 14 n.58.

³² See generally Antitrust-IP Guidelines, *supra* note 28, § 5.5; IP2 Report, *supra* note 28, at 65-66; Letter from Charles A. James, Assistant Attorney Gen., U.S. Dep't of Justice, to Ky P. Ewing, Esq. 11 (Nov. 12, 2002), *available at* <http://www.usdoj.gov/atr/public/busreview/200455.pdf>.

³³ See generally IP2 Report, *supra* note 28, at 74-82.

³⁴ The absence of any particular safeguard does not mean that a pool necessarily harms competition in violation of the antitrust laws. In an enforcement action, the Department would not measure a pool against a checklist of safeguards but instead would evaluate the particular facts and circumstances to determine whether the actual conduct is anticompetitive. See 3C DVD Business Review Letter, *supra* note 28, at 11 n.53; 6C DVD Business Review Letter, *supra* note 28, at 12 n.64; IP2 Report, *supra* note 28, at 72-73.

³⁵ MPEG-2 Business Review Letter, *supra* note 28, at 9.

³⁶ 35 U.S.C. § 282 ("A patent shall be presumed valid.").

unenforceable will be removed from the pool. Licensors are obligated to provide the Consortium "prompt notice" of any such finding.³⁷ And, because royalties are allocated, in part, on the number of patents in the pool, other licensors have an incentive to bring any such finding to the attention of the Consortium.

Excluding Substitute Patents from the Pool. Pools consisting solely of complementary patents are least likely to prove anticompetitive.³⁸ The Consortium intends that its pool be composed solely of complements and, to that end, has limited its pool to "essential" patents.³⁹ The Consortium's definition of essentiality encompasses not only patents "necessarily" essential to the standard (i.e., inevitably infringed by compliance with the standard), [*19] but also essential to the standard as a practical matter because there are no economically viable substitutes for the patents (i.e., not reading on the standard itself but nonetheless required to manufacture a competitive product compliant with the standard, due to production or design costs, consumer preferences, or other reasons).⁴⁰ In prior letters, the Department has determined that such a definition, if applied scrupulously and independently, will exclude economically viable substitutes from the pool.⁴¹

[*20]

There is no reason to reach a different conclusion as to the Consortium's proposal. The Consortium appears structured to preserve the patent expert's independence regarding his decisions about each patent's essentiality to the Gen-2 standard. He is to be paid by the hour regardless of the outcome of his determination and his decision is binding, although he can be asked to reconsider his finding for an additional fee and others can engage him to review his prior determination that a patent is essential.⁴² Additionally, the Consortium has committed not to replace the patent evaluator absent good cause.⁴³

Two additional factors may reduce any harm that might arise if an alternative is deemed economically essential as a practical matter. First, the Consortium, members of the Consortium, licensees of the Consortium, and other parties have the right to challenge any finding of essentiality. [*21]⁴⁴ Because royalties are based in part on the number of patents in the pool, members have an incentive to police the

³⁷ Participant Agreement, *supra* note 11, § 3.8.

³⁸ "Complementary" patents are patents covering separate aspects of a given technology that do not compete with each other. "Substitute" patents are "patents covering technologies that compete with each other." IP2 Report, *supra* note 28, at 77; *see also id.* at 74-78 for a full discussion of the implications of pooling substitute patents.

³⁹ *See* Participant Agreement, *supra* note 11, § 2.1; *see also id.* § 1.1 (definition of "Essential UHF RFID Patent").

⁴⁰ *Id.* To determine whether a patent is essential to a standard, the examiner reviews the patent's independent claims. Once one claim is deemed essential (i.e., complementary), the entire patent enters the pool and is available for licensing. *See* IP2 Report, *supra* note 28, at 76 n.129.

⁴¹ 6C DVD Business Review Letter, *supra* note 28, at 12; 3C DVD Business Review Letter, *supra* note 28, at 11.

⁴² RFID Consortium, LLC, Patent Evaluator Engagement Letter 2 (n.d.); Participant Agreement, *supra* note 11, § 3.4.

⁴³ Dolan 4/16/08 Letter, *supra* note 6, at 6-7.

⁴⁴ Participant Agreement, *supra* note 11, § 3.4. However, an individual party that challenges a finding of essentiality --whether a member of the Consortium, a licensee, or a third party--must pay an evaluation fee, win or lose, *id.*, dampening somewhat the incentive to the challenge the finding.

expert's work and challenge any patents for which there are alternatives. Second, it is our understanding that the expert intends to revisit his work periodically so that if alternatives to a patent deemed economically essential as a practical matter are identified or arise (and are adopted), that patent will then be removed from the pool.

Harm to Downstream Markets. Some members of the Consortium currently compete in downstream markets, but it appears unlikely that they could use the pool to impede competition in any of these markets, either between any licensors and licensees or among licensors themselves.

Licensors are unlikely to use the pool to disadvantage rivals in downstream markets because those licensors that market UHF RFID products cannot deny their [*22] competitors access to necessary technology, or charge them discriminatory rates. Licenses to their patents would be available from an independent licensing agent on nondiscriminatory terms.⁴⁵ In fact, given these provisions, the pool should aid downstream competitors of licensors by enhancing their access to necessary technology. Although the license limits the use of pool patents to operation of and research related to products compliant with the Gen-2 standard, even mavericks seeking to move the technology in new directions (i.e., away from the Gen-2 standard), who might otherwise find it difficult to license the patents, should have access to licenses through the pool.

If the Consortium engages an independent licensing administrator, as proposed, it is unlikely that the pool will facilitate anticompetitive harm from collusion among pool licensors. We understand that the prospective administrator will aggregate licensee information, which is limited to the quantity, type, and place of manufacture and sale of products sold, before providing it to the Consortium, preventing its members from directly accessing [*23] individual licensees' sensitive business information.

If, however, the Consortium does not engage an independent licensing administrator and the Consortium's administrative committee must act as the licensing administrator, the Department would be concerned that the Consortium's current structure does not adequately safeguard licensees' sensitive business information from being accessed and used by licensors to harm competition. Therefore, we decline to state our enforcement intentions should the Consortium not retain an independent licensing administrator (on terms substantially similar to those currently contemplated).

Foreclosure of Innovation: Grantbacks. A broadly written grantback clause can deter innovation by reducing the returns of follow-on inventors, but a narrowly tailored grantback clause is "unlikely to raise competitive concerns."⁴⁶ The Consortium's grantback clause is narrowly tailored. It requires licensees to grant back to the Consortium the (nonexclusive) right to license their essential Gen-2 patents.⁴⁷ This clause is likely to promote competition because it will enable all pool licensees to practice improvements essential to implementing the standard patented [*24] by other licensees. Thus, the clause eliminates the potential for pool licensees to block use of their essential patents. Moreover, adding such essential patents to the pool is likely to lower the transaction costs of the pool's licensees. The Consortium has reduced the risk that the grantback clause will discourage licensee research and development by limiting its scope to patents that are essential to implementing the Gen-2 standard and by ensuring that the

⁴⁵ *Id.* § 2.1; Patent Portfolio License, *supra* note 20, § 3.5.

⁴⁶ IP2 Report, *supra* note 28, at 81.

⁴⁷ Patent Portfolio License, *supra* note 20, § 2.4.

grantback licensors will be compensated through the pool royalty-sharing agreement in the same manner as the other licensors. By contrast, inventive licensees may decide to license out any of their nonessential inventions independently, leaving them free to capture the new patent's value for uses other than practicing the standard.⁴⁸ For these reasons, this narrowly tailored grantback is not likely to harm competition.⁴⁹

[*25]

Tying. "The conditioning of a license for one intellectual property right on the license of a second such right could be a concern where its effect was to foreclose competition from technological alternatives to the second."⁵⁰ Here, however, the essentiality requirement for the inclusion of patents means that there would not be an economically viable alternative to any of the patents in the pool and, therefore, that the pool will not foreclose competition between a pool patent and an alternative technology.

Prior Licensing Commitments. Members of the Consortium may have prior commitments to license their UHF RFID patents, for example, because of their participation in the standard-setting process or because of bilateral licensing agreements. You have informed the Department that the Consortium has a mechanism for accommodating any such commitments.

IV. Conclusion

Based on the information and assurances you have provided, the Consortium's proposed pooling arrangement [*26] appears reasonably likely to yield efficiencies. It includes safeguards reasonably tailored to minimize the risk of harm to competition by producers of products compliant with the Gen-2 standard or by technology holders and to minimize the risk of dampening innovation incentives. Therefore, the Department has no present intention to take antitrust enforcement action against the conduct you have described. This letter expresses the Department's current enforcement intention and is predicated on the accuracy of the information and representations that you have presented to us. In accordance with its normal practice, the Department reserves the right to bring an enforcement action in the future if the actual operation of the proposed conduct proves to be anticompetitive in purpose or effect.

This statement is made in accordance with the Department's Business Review Procedure, 28 C.F.R. § 50.6. Pursuant to its terms, your business review request and this letter will be made publicly available immediately, and any supporting data will be made publicly available within thirty days of the date of this letter, unless you request that any part of the material be withheld in accordance with [*27] Paragraph 10 (c) of the Business Review Procedure.

Yours sincerely,

Thomas O. Barnett

⁴⁸ 6C DVD Business Review Letter, *supra* note 28, at 15-16. In addition, a potential licensee with an ambitious research agenda could negotiate individual licenses with members of the Consortium and thereby avoid the pool and its grantback obligation. But, to do so, the licensee would likely forego the cost savings afforded by the pool license.

⁴⁹ See MPEG-2 Business Review Letter, *supra* note 28, at 12-13; 6C DVD Business Review Letter, *supra* note 28, at 14-16.

⁵⁰ MPEG-2 Business Review Letter, *supra* note 28, at 11.

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Assistant Attorney General

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